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**Occupying streets: street design in station areas, London and Frankfurt**

**Gregory Cowan**

Faculty of Architecture and the Built Environment

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# Occupying Streets

Street Design in Station Areas, London and Frankfurt

Gregory Cowan

A thesis submitted in partial fulfilment of the  
requirements of the University of Westminster  
for the degree of Doctor of Philosophy

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**abstract**

Intensively used streets in station areas are crucial to inner cities. How can street design better meet the needs of diverse street users present in an intensively used mixed use street? Urbanists and users have several ways of researching the diversity of uses and amenities functions that a street facilitates in inner city station areas. This research investigates how these ways of working and thinking contribute to street design. Participant observation research, carried out in station areas in Frankfurt Bahnhofsviertel and in London King's Cross, investigated a wide range of user perspectives on street design. Both are vibrant, mixed-use neighbourhoods, with hotels, residential accommodation, offices, commercial space and night entertainment uses, in internationally well-connected and culturally diverse regenerated station hubs. Each have become eclectic and urbane post-industrial inner-city areas. Both bear signs of the late 20th Century to street design, with motoring-dominated public realms. Both have qualities of urban *noir*. In this *noir* setting, a gap was identified between highway engineering and urban design in the applied knowledge of street design to the railway station quarter. A diverse set of users and agents of the case study streets, including some hard-to-reach users, was interviewed. The thesis contributes by looking beyond the UK Manual for Streets, and critiquing shared space methodology, while offering applications of architectural and urban design thinking, and extending the street design literature in the area of the noir city, and extending methods of street design beyond engineering, architecture and machines.

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Caledonian Road, from Pentonville Road

Caledonian Road, from Bridge Wharf

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**declaration**

I declare that all the material contained in this thesis is my own work. No portion of the work has been submitted in support of an application for another degree or qualification of this university or any other institution.

Part of this thesis was presented in the following conference and published in the proceedings: the WPSC 2011 The World Planning Schools Congress, Perth Western Australia, July 2011 and an excerpt was included in The Weather Ring, issue 3, 2010, Perth Australia. A piece on 'London's Streets' was published in Edge Condition in 2014

## **Abbreviations**

ADAC – Allgemeines Deutsches Automobil-Club  
BBC - British Broadcasting Corporation  
CRT - Canal and Rivers Trust (formerly British Waterways)  
CABE - Commission for Architecture and the Built Environment  
CCA - Canadian Centre for Architecture  
CCTV - Closed Circuit Television  
CIHT – Chartered Institute for Highways and Transportation  
COI – Central Office of Information  
CSM - Central St Martins College of Art and Design at the University of the Arts London  
DAM - Deutsches Architekturmuseum  
DfT - Department for Transport  
DMRB - Design Manual for Roads and Bridges  
ESG - Empfehlungen fuer Strassenraumgestaltung innerhalb bebaute Gebiete  
FGSV - Forschungsgesellschaft für Straßen- und Verkehrswesen  
GDV - Gesellschaft der Deutschen Versicherer  
INTERREG - The European Fund for Regional Development  
LSS - London Sound Survey  
LTN - Local Transport Notes  
MfS2 - Manual for Streets 2  
NYDOT - New York's Department of Transportation  
OECD - Organisation for Economic Cooperation and Development  
OED - Oxford English Dictionary  
RASt - Richtlinien für die Anlage von Stadtstraßen and and RASSt-Q Querschnitte (sections)  
RTPI - Royal Town Planning Institute  
ROG - Raum Ordnungs Gesetz (Spatial Planning Act)  
SDM - Street Design Manual  
SST - Safer Streets Team  
SNT - Safer Neighbourhoods Team TCPA - Town and Country Planning Act  
TfL - Transport for London  
TRL - Transport Research Laboratory  
TU - Technische Universitaet (University of Technology)  
UN - United Nations  
ZDF - Zweites Deutsches Fernsehen

## Preface

The inner city streets which are the subject and object of this thesis are presented here as a rich and complex combination of architecture, transport infrastructure, and urban cultures. I argue that improving the liveability of these strategically important streets in international railway station areas is not currently given the right kinds of attention by urbanists, nor by those who use them. Occupying and making liveable inner city streets is a complex and personal agenda for me, based on a strongly felt relationship to specific local areas. The relationship is developed with years of experience. It extends to a wider urban liveability experience related to living, working, walking, cycling, and using various forms of private and public transport, in a neighbourhood and in a wider metropolis, and importantly also, I believe, it extends to a strong connection with a community.

In the first year of my architectural studies in Perth Australia in 1983, St. Pancras railway station, then 115 years old and partly derelict, was featured in an historical case study. It was an example of a legacy in the British world of high Victorian architecture and railway and transport planning. The beautiful wide-span train shed fronted by the Midland Grand Railway Hotel facing central London was opened in 1868, when the British Empire was in full flight, the same year that the *Hougoumont* arrived in Western Australia as the last convict ship. (Sullivan 2008 p 104). The St. Pancras Station complex alongside King's Cross Station was also located on the edge between the old London and the Victorian industrial city. My interest in European urbanism and large cities grew as a student in Perth, and on my first visit to Europe, for a few weeks in 1987. It was the final year of my part 2 architecture studies and my interest in cities on the European continent grew. I worked in Perth and then moved in 1989 to live and work as an architect in Graz, Austria, and later Vienna. As borders within Europe opened up, I experienced travel in central Europe, between the newly re-connecting worlds of Eastern and Western Europe. Having grown up in a postcolonial suburb of Perth Australia, metropolises like Graz, Vienna, Frankfurt and London represented exciting walkable, accessible, urban places in which to aspire to live. In ways unlike any I had experienced in Perth hitherto, motor vehicles appeared to play a secondary role to urban planning and the human experience of the street.

After working with architects Szyszkowitz und Kowalski and living in Graz Austria for two years, I worked in the centre of Vienna, with the Viennese architect-urbanist Hermann Czech - a follower of Camillo Sitte - in a room above a monastery in the medieval centre of Vienna. Hermann Czech had edited volume of his articles of urban criticism, *Zur Abwechslung: Ausgewählte Schriften zur Architektur in Wien*, For a Change – Selected Writings about Architecture in Vienna, (Czech 1977, 1996). Czech and his writings, in their reflective, inward-looking, Viennese way, provided me with a new model for thinking about and reading the city, a *Weltanschauung* I had not previously experienced.

Czech analysed and critiqued aspects of the urban culture and form of Vienna, well beyond built architecture; through his articles and essays, and through architectural projects. Czech's translation of Alexander's Pattern Language is called *Eine Muster-Sprache* (1995, 2011).

„In deutscher Sprache liegt nunmehr so etwas wie der Pruefstein der Alexander'schen Theorie vor – des nach wie vor umfassendsten zeitgenossischen Denkansatzes zur weiterentwicklung des Bauens.“ (Czech 2011:1266-7)

Now we have in the German language something like the touchstone (*Pruefstein*) of Alexander's theory, which remains the most comprehensive contemporary contribution to the further development of building. (Czech 2011:1266-7 transl. Cowan)

Czech asserts that *A Pattern Language*., while providing a set of guidelines, is not a pattern book. The patterns are not rules, but 'structures of arguments' (2011 p 1265) which Czech traces back to diagram structures found in Alexander's doctorate, *Notes on the Synthesis of Form* (1964) and *A City is Not a Tree* (1965). The diagrams are called 'patterns' and are the key to the process of form-finding. Patterns or diagrams for what we call design are closer to mechanisms of first principles of design problem-finding and problem-solving, rather than the prototype solutions, the latter of which I had been sceptical about.

The initial development of the present research was prompted and inspired by literature on streets developed at the New York think-tank, the Institute for Architecture and Urban Studies (1967-84), in particular by Anthony Vidler's historical overview essay about Europe called *The Scenes of the Street*. The essay appears in the collection *On Streets* (Anderson, ed. 1978) and was later republished as the title essay of Vidler's book (Vidler, 2010). The

exploration of streets as urban criticism develops in a collection edited by Zeynep Celik, Diane G Favro, and Richard Ingersoll; *Streets: Critical Perspectives on Public Space* (1994), a collection which gathers streets-themed essays about eighteen cities from colleagues and students of Spiro Kostoff, in honour of his panoramic conception of history, and of architecture's settings and rituals (1985, 1991, 1992). Settings and rituals of architecture was a subject which I pursued via Jormakka's *Heimlich manœuvres : ritual in architectural form* (1995). Streets and urban public realms as urban phenomena and also as processes make metaphors of participation processes and negotiated public realms in cities.

I began learning German after returning to Perth, and went to live in Austria a few years later.

About a decade later, I met Frankfurt architect Sabina Wallwey in Perth, through a German friend, and visited her in Frankfurt a couple of times from London, also visiting the *Bahnhofsviertel*. I had the great opportunity to work with Sabina Wallwey's practice, *1100 Architekten* in Frankfurt's *Bahnhofsviertel* in summer 2009, and I travelled there from London by train. I was re-introduced to the urban area which I could compare with King's Cross Railway Station quarter, and I had now lived in the latter for several years. Meanwhile, I have lived in London since 2003, and the railway station area since 2007, sampling from and participating in the changing neighbourhood since it became the international station quarter in November 2007.

### The journey to Marchmont Street

Leaving my hometown Perth in 2003 for a sojourn in London, I had an initial idea about researching streets, and how people occupy them, based on my experience of living in Australia and Europe up to that time. The research initially developed from my interest in street parades and protest performances, some of which I had participated in, physically, about one of which I wrote in *Collapsing Australian Architecture: The Aboriginal Tent Embassy* (Cowan, 2001) and *Tent Embassies: Collapsing, Australia and Architecture* (Cowan, 2008).

As a teenager, my personal experience of streets and the civic was based on living in Perth's suburban fringe, walking at night after the street lights switched off at 1am. My first job as a teenager in 1978 was to roll up Sunday newspapers in a local motor service garage at night, so that the news could be thrown from a delivery car onto suburban front lawns. Walking from my home in Glanton Way, on the edge of the bush, through darkened Beaman Street with lawns watered on timers at night and dogs barking, I walked through a pedestrian shortcut to the garage and shops in The Strand. A few years later as a chaperoned sixteen year old, I played in a rock group in night clubs in the city, much farther away from my suburban home, relying on my father as a "chauffeur".

Adventures on the street at night mapped here are the walk to my first job rolling newspapers at a local motor garage, chased cycling home in the streets of Graz and the more banal walk home from working until midnight at the studio "Atelier" of Hermann Czech above an old Fransican Monastery in Singerstrasse in Vienna.

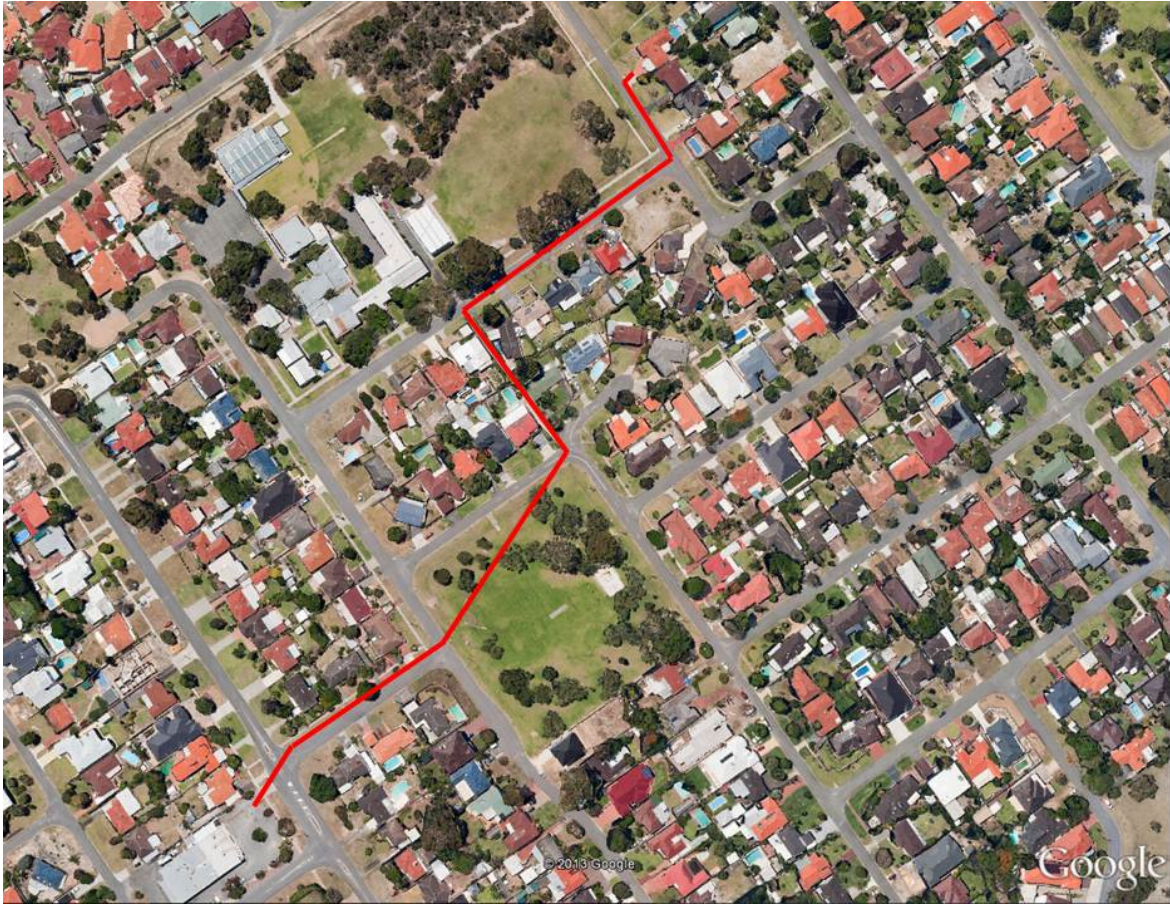


Fig. 1 From 25 Glanton Way (top) to BP Garage (bottom)



Fig. 2. From Elisabethstrasse 44 to Grieskai 38 and the point where police stopped me.

Later, living and working as an architect in Vienna (1991), I rarely deviated from my walking route between home at Erdberger Landstrasse 43, the 3<sup>rd</sup> district, and my workplace above a monastery at Singerstrasse 26, in the medieval 1<sup>st</sup> district.



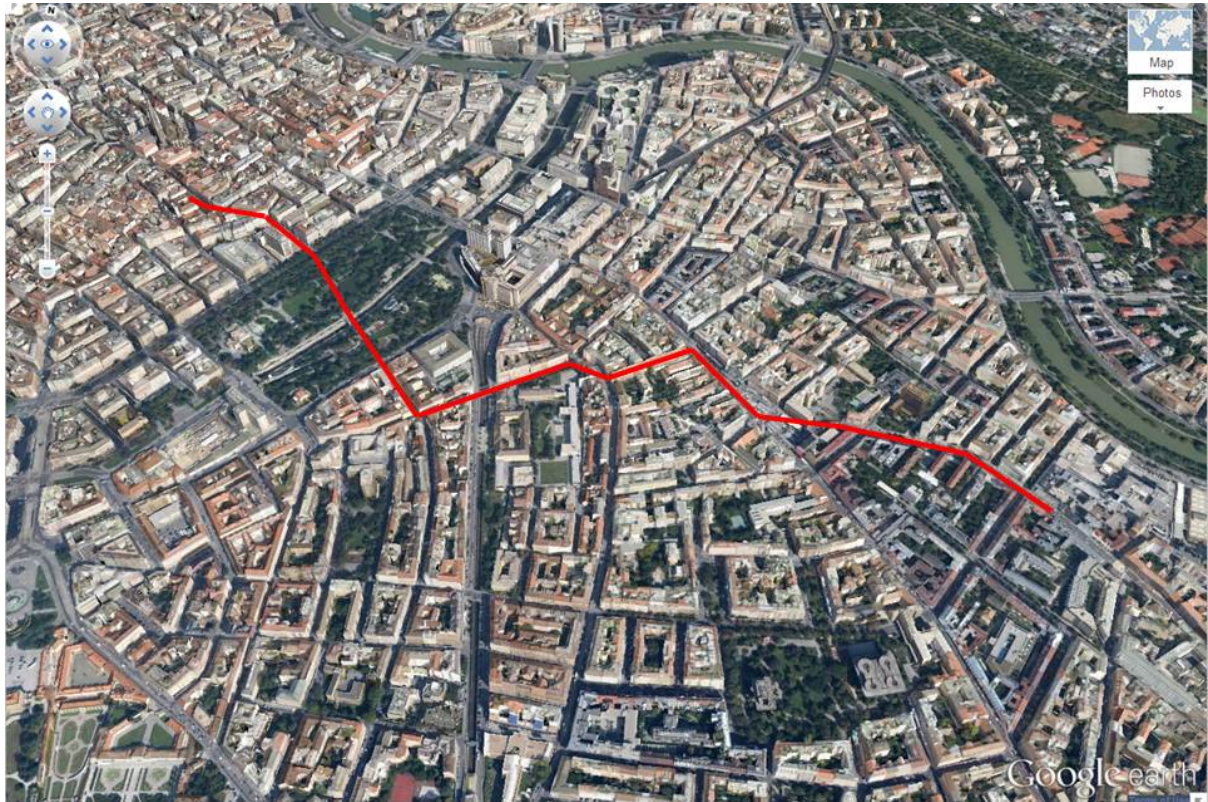


Fig. 3 From Singerstrasse 26 (left) to Erdbergstrasse 44 (right) Vienna

In the years afterward, as a traveller or working visitor for short periods in many other cities (including Kuala Lumpur, Denpasar, Singapore, Darwin, Adelaide, Sydney, Chandigarh, Jaipur, Ahmedabad, Pune, Mumbai) I found that a particular conviviality in urban public realms or “streets” seemed to exist in each case, always based on slightly different magical combinations of human occupations, responses to ambiance, place and movement. Streets – highways with a place function – seemed to balance their motorised and non-motorised occupations by some negotiated ‘design’.

#### Finding Marchmont Street

“the most beautiful cities were those where festivals were not planned in advance, but there was a space where they could unfold.” Levebvre (1987, p 36)

Arriving in London on sabbatical from teaching in a Perth university in 2003, after taking an interest in the Perth Protest Embassy at St. George's Terrace in Perth's Central Business District. Seeking an academic connection in London to extend my study of tent embassies, protests and collapsible architecture, I was drawn to the Menzies Centre for Australian Studies at University of London in Russell Square. While looking for work, I used the library and read and wrote at a desk there, before I was allowed access to the British Library. Close to Russell Square, on a central London street between the British Museum and the British Library, a handwritten sign was taped in the fanlight window of a Georgian terrace house, offering to let a small flat above an Indian restaurant at 59 Marchmont Street. Next door was a hairdresser's shop, and a grocery shop, bookshops and community centre were all nearby, with Tavistock and Brunswick Squares and St George's Gardens. Though surprised at the comparative informality of the letting arrangement, I settled into the attic at 59 with my partner. I wrote *"Challenging the Street: Politics and Architecture in Urban Design of Streets"*, awarded runner up for the inaugural *The James Stirling Memorial Lecture Prize* at the *London School of Economics* with the *Canadian Centre for Architecture* (2003). A street party in Marchmont Street sparked off my thesis research, as will be explained in Chapter 3. Having introduced, in this preface, a personal account of my interest in this subject, I now turn to the substantive introduction.

# introduction 1

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

## Introduction

This thesis derives from the author's personal and professional interest in inner city streets as places for living. The interest is in a form of intense urban living which differs from living in a suburban residential street. The thesis is a review point on a journey which looks forward to street design for an urban future beyond suburbia – and it looks back to the unmediated and unmotorised human experience of the street. The journey moves from developing an architectural way of thinking about the lived experience of streets to five years investigating two complex case studies. It then looks to applying the findings of these investigations to contemporary knowledge, as discussed in the concluding chapter. This introduction briefly outlines the research question. It introduces the literature context, research methodology and case study analysis to provide a clear and consistent context for the findings and conclusion. A comparative study was undertaken with a view of Europe and London as a field for work. The author worked in Austria in continental Europe early in his career as an architect, and European urban living became a strong focus of interest after growing up and qualifying as an architect in a modern suburban setting in Perth, Australia. A sustainable inner city residential life has been pursued and studied in the process of the author's migration to Europe.

As the organisation Urban Design London points out in a 2015 guide, *Slow Streets Sourcebook*, "highway authorities traditionally seek to maximise traffic capacity by segregating motorised traffic from other modes" (Urban Design London, 2015 p3). The segregation approach has generally been successfully applied to large roads, and with increasing segregation after *Traffic in Towns*, (Buchanan, 1962), led to improved safety and reduced journey times – but only for motoring! However, the professional norm of a motorised road engineering approach, applied by default also to inner city streets, has had well-documented negative impacts on quality of life and wellbeing, with motor traffic being detrimental to quality and character of places affected.

Appleyard's 1969 study of liveable streets in San Francisco was replicated in Bristol by Joshua Hart (2008) and again found that people living on roads with less traffic have three times more friends and twice as many acquaintances on their street, compared with those living on a similar street with heavy traffic (Urban Design London 2015, Hart 2008,

Appleyard 1981, and Streetfilms 2011). In the context of these debates about motorisation, traffic segregation and liveable streets, this thesis asks, how can streets be designed to meet diverse user requirements?

Guidance on street design suggests the inner city street should be more ‘pedestrian friendly’, liveable and walkable. (Urban Design London 2015, Scottish Government 2010, Manual for Streets 2, 2010). The theme that runs through this thesis is the primacy of the pedestrian in the street. S/he is one of the longest standing occupants of the street, like other forms of nature, rivers, birds and trees which remain in an urban ecology. The pedestrian, traveller, resident, citizen or loiterer has, as an occupant of the city, traditionally, logically and implicitly been at the centre of street design.

It is the argument of this thesis that street design ‘practitioners’ are often unfamiliar with certain aspects of the street, preventing a holistic approach, from transport engineers’ lack of understanding of historical architecture and retail space, to urban designers’ lack of understanding of differences between motor traffic, cycling and pedestrians. Architects, urban designers, highway planners, engineers, resident activists and others involved in street design tend to over emphasise certain aspects. They have also failed to address the *noir* city, from conflicts on the footway to the vulnerability of intoxicated, elderly or disabled pedestrians and have become inured to the real value of the unquantifiable diversity of people which makes the public street more inclusive than the semi-private shopping mall or railway station concourse.

In this thesis, the reader is invited to consider the compelling value of “listening to the street” and its occupants; to consider the urban soundscape, the sounds and the qualities of the respective streets and the human diversity of the inner city areas as quintessentially urban cosmopolitan experience. Streets are an essential component of the city and of everyday life. For people living, working and playing in inner cities, street design influences and enhances everyday life in a different and more immediate way than the designs of other public spaces. The influence and the relationship is also perpetually changing, and is part of a ‘wicked problem’ (Biddulph 2012) of living in the city; walking, desiring, and designing.

## Stations

This research set out from the premise that a better professional and personal understanding of the inner city street would enable clearer thinking about improving street design, as both process and physical environments. In particular, the research interest is in station areas, inner city hubs with urban, regional and international transport links. These transport hubs, besides being gateways to the cities they connect, simultaneously have potential to be liveable urban centres, and provide intense urban experiences. With their high levels of transport accessibility off the street, and with the mix of occupiers on streets in areas adjacent, these streets could be more conducive to pedestrian and human-scale activity. Cycling, loading, parking, walking, talking, listening and standing can all play roles in this model mix. Particularly rich and diverse physical and social urban characters of place and of populations are found in international station areas in European cities.

Station areas form urban hubs not only for transport but for culture. Streets around international railway stations are more intensely used than most inner city streets, and by a greater diversity of people, for more diverse reasons. As a microcosm and as a prototype of inner city complexity and diversity, inner city station area streets are spaces of potential, where place and movement would potentially be in greater harmony, as globally-situated local places. Station areas as urban hubs might be expected to be designed to have more liveable and 'pedestrian-friendly' streets than those on city margins, given their footfall, their commercial importance and their critically valuable multi-modal transport role in the city.

In Australia, the researcher had learned of '*The Pedestrians' Association*', founded in 1929 in the UK. Rebranded *Living Streets* in 2001, this national UK voluntary organisation is further discussed in the context of the London case study, and the researcher has gained insights into the organisation and its campaigns over several years of working with Living Streets. The UK Pedestrians' Association, as it was, is credited with political lobbying for the introduction of motor vehicle licences in the 1930s, campaigning to reduce pedestrian deaths and injuries, and make streets safer, more livable places. The Association campaigned for zebra crossings to allow pedestrians priority to cross, and for establishing urban speed limits in the 1930s, when pedestrian deaths and injuries by collision with

automobiles began to attract attention. Political struggles for equality and emancipation were highlighted in the effect of challenging the scenario where drivers of powerful vehicles had automatic precedence over those walking in public, or impunity for injuring and killing others accidentally by the machine they controlled. The organisation fought to defend the pedestrian's interest, and the right to enjoy the highway as a liveable public realm (Living Streets 2013a p 1).

For this researcher, a great deal seems to be at stake; the decorum of urban civilization and the everyday experience of the inner city. Street life means working, commuting or ludic moments (Stevens 2007) where one might enjoy being in the city spontaneously for celebration, for protest, or for no particular purpose. Germany's more recently established equivalent of the pedestrians' association is *Fuss eV*, established 1985 for pedestrian 'protection' (Fuss eV 2013).

Living Streets campaigns to 'create safe, attractive, enjoyable streets where it's great to walk' (Living Streets 2013), attempting to facilitate actions bridging across multi-faceted interests in the convivial urban design of public realms, for public health and neighbourhood cohesion across populations. Living Streets' methods are explored further in the methodology chapter and under the London case study.

### **Key Concepts**

The concepts and terminology associated with streets are central to the structure of the city and to this thesis. The streets and commons which are occupied are outlined now, before an overview of the thesis structure is provided.

Street: for the purposes of Manual for Streets "A street is defined as a highway that has important public realm functions beyond the movement of traffic. Most critically, streets should have a sense of place, which is mainly realised through local distinctiveness and sensitivity in design. They also provide direct access to the buildings and the spaces that line them. Most highways in built-up areas can therefore be considered as streets." (MfS 1, 2007, 1.1.7. p 12).

Road: Roads are essentially highways whose main function is accommodating the movement of motor traffic (MfS 2007 2.1.1. p 15).

The Oxford Dictionary definition of a street is a “paved road” (OED, 2013). A street might be considered as an architecturally and constructionally developed path or road, both in a material sense and in a spatial sense. It is a layered or striated space rather than a smooth space. Not only because of its paved surface, but because of its environment and ambiance, and its containment by buildings, the concept of a street suggests more architectural sophistication than a road which can be unenclosed and flat. The street is also a “highway” (OED, *ibid.*). In the English language, and as traditionally understood in British culture, a highway is a public realm to which everyone has access, according to an ancient principle of the public realm.

The public realm is a common asset, a public “kingdom” (OED, 2013) which is notionally collectively owned, occupied and used by the public. The public realm is a physical part of the commons, which are shared, locally, regionally and internationally.

The socially constructed existence of the commons is a principle which the Occupy Movement has been testing in recent years (Chomsky, 2012, p 74-75). The accessibility characteristic of the street is critical to its urban significance, and the role it plays in urban civilisation. Civilisation is an ongoing process of developing ways of living, *civitas* (Latin, civility) together with fellow citizens, it is part of what the city does and part of what makes the city. Civilisation as a process after all, is not an end state, but a form of constant transition towards better living together, and the process will in future probably require slower, more humane and ecologically clean movement with less associated pollution and noise. The street plays an integral part as a place and system where people, citizens, and stakeholders in the city get along.

The street is commonplace and it is also a “common place”, used in the phrase “to take to the street” (OED, *ibid.*, 1b) to go out, go abroad. Street, as opposed to road, is used alliteratively as a common place in “by sty and by street” to mean “all places, everywhere”. (OED, 1c). A street in an urban context – city, town, or village – is typically wider than a lane or alley, and usually runs “between two lines of houses or buildings” (OED, 2a). This could be said to imply a paved surface, for drainage and durability, but also for supervision and active



occupation. The street is considered as comprising of a carriageway along with pavements and buildings on either side (OED, 2a).

### **Whose Streets?**

Streets are a quintessential public realm and a key element and a measure of a city. Occupation of places like streets and their ownership are related in a basic physical sense. Shared ownership of the public realm is an abstract and remote political idea at the basis of citizenship. Especially in urban contexts, streets are significant visible and physical indications of how societies share their public realms. Streets have evolved as spaces between buildings in cities with an important public realm function. The public realm function may be secondary or primary, but a highway is not only a place of free movement but also a place which is accessible to the general population.

Streets can be distinguished from roads, which can be defined as primarily a means of clear access between one place and another. The word for 'roads' comes from routes, '*bahnen*' or clear access ways. Motorisation / electrification and the increased technology associated with these in dense urban development have exacerbated the differences. The distinction can be linguistically compared to the one between *Bahn* (way / route) and the *Strasse*, in German. The latter, like 'Street' has a Latin root in *strata, stratum*, suggesting layers of paved construction. Modern variations of urban street are avenue, boulevard, high street, *Einkaufstrasse* (shopping street) and the 'mixed priority route' (DfT 2008), which in the London context, was not yet clearly a *street* as defined here. It is argued that pedestrians, non-motorised street users, and also vulnerable users navigate the fine nuances of difference between the above types much more carefully and sensitively than drivers, transport planners or street designers may be expected to.

### **Definitions of Street**

The urban meaning and significance of the street as component system of the *polis* changed significantly in the modern era of motorised street transport. High level above ground transport in viaducts and underground transport, railways and air traffic, when passing above and below street level, have only an indirect physical impact on inner city streets through access and interchange points, while motorised passenger transport and freight logistics transport has changed the ways inner city streets are occupied.

Freight and logistics movement is increasingly street based, having been removed from rail and underground systems like the postal train in central London, although there are some signs that inner urban parcel deliveries may return to being on foot or by bicycle (Schliwa et. al. 2015). The largest change was directly after World War 2, when infrastructure was adapted with lasting effects. In the twenty first century, urbanism has evolved also with urban population expansion. This has placed greater pressure on inner city areas and the now half-a-century-old ‘motoring friendly’ urban streets infrastructure and its legacy are increasingly challenged.

The urban pedestrian or ‘street user’ is often considered too commonplace to be analysed for distinctive perspectives. In transport modelling, Transport for London (2010 p 141) guidelines note that vehicle-like behaviour, rather than emulation of human social forces (Helbing, 1998) has often been the basis for modelling pedestrian movement. Modelling was designed to more conveniently integrate pedestrians into transport modelling – here the cart has surely got before the horse.

The pedestrian street user can be a diverse group of people. But the pedestrian is also a momentary state of being for street users from a wide range, combining all kinds of transport users, from car, bus, train and streetcar passengers to heavy vehicle or emergency vehicle operators at various points.

### **Definitions of Liveability**

Concomitant with a more nuanced understanding of pedestrians and streets, in recent years there has been a growing interest in the notion of livability, and, central to this research, ‘livable streets’. "Livability is an imprecise and untheorised ‘metaconcept for environmental quality’" according to Stevens (2009 p 371) in *Broken Public Spaces*. This research, however, follows the work of Appleyard’s *Livable Streets* (1982) and Dumbaugh’s thesis *Safe Streets, Livable Streets* (2005). A standard of livability of residential streets was set by Donald Appleyard in his 1969 study of traffic effects on residents in streets in San Francisco, published in 1981 in *Livable Streets* (Appleyard 1981). It showed that increased volumes of motor traffic affected social relations between residents and that livability was inversely proportional to motor traffic volumes. Definitions of livability have expanded through

subsequent work (Bosselmann et al 1999, livablecities 2015), and through human-centred urban design much more generally.

Walkable streets (Farr 2008 p 152) and are also distinguished in this research from livable streets, the former tending to be specific to healthy transport and pedestrians, rather than holistic and relating to the entire environment.

The general question about livability and urban design is: what is it that gives a city the feeling of being ‘alive’? Commerce, financial transactions and the coming and going of goods and services, often with the help of transport, appear important to the image of the modern city, but human motivation and biological energy behind any and all of these is surely central above all to the actual real life of the city. Jan Gehl has reinforced this message about livability extensively in his practice, research and books on ‘cities for people’ (1987, 2004, 2006, 2010, 2013), and his messages about people centred design are underlined in his 2004 report *Public Spaces and Public Life in London* (2004). In the London report, Gehl suggests three levels for considering the Eco-city; City Level, Public Space Level and Detailed Level (Gehl 2004 p.15). This research set out to consider the detailed level by directly listening to actors on sites in London and Frankfurt.

This thesis aims to unpack the concept of livable streets beyond safety and residential areas, in specific case study contexts. The research was conducted through interviews, both in inner city railway station areas, using first principles in both UK and in the German-speaking context of Frankfurt’s Station Quarter and Red Light area. The streets selected for detailed study were intensively used and close to the railway stations, and while the London case study street could be considered heavily trafficked in Appleyard’s (1981) or Bosselmann et al’s (2013) terms, the Frankfurt case study street could be considered only lightly-trafficked by motor vehicles.

Both London Kings Cross and Frankfurt Bahnhofsviertel are special in European terms, and both are railway station regeneration areas with exciting possibilities and challenges in the 21st century. More about the reasoning for these choices is explained in the Methodology, chapter 3.

Views on urban regeneration in the theory and literature vary between England and Germany, and the research found that in the latter, cities are designed within frameworks rather than planned by negotiation. The respective British and Germanic families of planning systems outlined by Newman and Thornley in *Urban Planning in Europe* (1996) compares these two approaches, with the British being more consensual and the Germanic more regulated. A form of planning dysfunction exists in both cases, nevertheless, between transport planning and public realm design planning. This tension forms a key theme of the research.

### **Streets around Transport Hubs**

The modern history of streets as public realms around transport hubs like train stations represent a special case, as gradually increasingly mechanised or technologised routes in western European cities. They have developed at the expense of some of the bodily sense of occupation of the city. It has been observed that design for street transport in the twentieth century after the Second World War has often come to dominate streets, and this is especially true in planning streets in station areas.

One of the research premises was that ‘glocalism’ is a key to the attraction of modern European cities; the ability to walk and access local facilities as well as access to global resources. Localism has become more important as a form of citizenship of a locale – although the balance in mixed-use areas between local people and visitors to an area is complex in the case of station areas. The occupation of streets is expected to balance in the ‘local’ case, the patronage of a street by people who live and work locally, with that of those who are passing through to access destinations such as a railway station, transport interchange hub, and so on (Barnett, 2011). Cities and the station neighbourhood on high speed train corridors (ibid) in future might be expected to have little on-street parking. Local streets in this future scenario would re-emerge as a backbone of town and district centres, and as an unselfconscious communal public realm, day and night. An unselfconscious public realm would be a common space or shared realm which does not need to be demarcated as such, it is naturally that way. Usually streets are not marked as ‘public realm’ and when King’s Cross Central erected signs in a public street to state ‘Please use this private estate considerately’, the call for self-conscious compliant public behaviour raised concern

(Vasagar 2012, Minton 2012). The thesis investigates planning and design of inner city mixed use streets, to reinforce or restore the quality of urban human life with the ‘right kind’ of urban intensity.

### **Noir Hubs**

The urban noir is part of the attraction of the contemporary inner city street, especially after hours. The street at night can be defined in a very different way to its daytime by artificial light. There is a double edged compelling and repelling urbanity in noir urbanism, characterised by greater diversity and challenging cultural exchange.

Walter Benjamin in the 1930s noted that the modern pedestrian flaneur or flaneuse was drawn into arcades with electrification in the early modern European city (Benjamin 1927-40). At the same time, motorisation added to an existing diverse moving street life of sweeps, lightermen, dustcarts and taxis in cities. This research went looking for some of these characters in the railway station areas of the modern cities of Frankfurt and London, and documents what it found in chapter 6, the analysis.

World War 2 brought destruction in the European cities of London and Frankfurt by aerial bombardment, but also brought a pretext for inner urban modernisation. Segregation of space increased with post-war motorised street planning. The balancing of emphasis between design for movement and design for place in the inner city street design has leaned towards movement and motorised transport in the post-World-War-2 recovery (Jones, Roberts Morris 2007 p 2).

The growth and recovery tended to prioritise movement, facilitating the movement of construction machinery needed for rebuilding cities and of the essential commercial traffic which has always been associated with restlessness economic progress. There is increasing acceptance that occupation by movement and motorised transport modes will change, with the concept of peak oil suggesting that oil reserves expiring will drive fossil fuel use into decline (Alekklett, 2012, Deffeyes 2005), and with peak car (Metz 2014) holding that motoring will decline due to myriad factors, from the growing culture of urbanism to public transport (Newman and Kenworthy 2011). Commercial motoring traffic in Europe is under pressure to become greener and cleaner. Improving appreciation of the urban environment,

along with the objective improvement of environmental quality - air, nature, liveability - will require careful holistic cross-disciplinary and interagency thinking (Clean Air in London, 2014).

Walkability, architectural and spatial appreciation, social and convivial use of the public realm and the commercial vitality of street spaces as a consequence need to be investigated. This research begins by enquiring as to what the users of the case study streets considered acceptable and possible. It is predicted that these viewpoints will be contrasted with qualities that are the result of transport methods which have overly favoured motorised occupations, such as vehicle counts, (traffic) congestion metrics, signal timings and controls.

### **Station Quarters**

Station quarters are a special case study of a kind of inner-city urbanism in the 21st century city. Barnett (2011) describes high speed railways as the new main streets of conurbations; for example London - Kings Cross - Margate - Ashford and Frankfurt - Mainz - Wiesbaden. The role of the railway is changing, it has become passenger oriented but may one day also return to significance for freight logistics (Woodburn, 2012). There is a very diverse mix of visitors and local users in these station hubs, from people accessing special inner city services like hostels drug facilities, football pubs, and municipal services.

The thesis simultaneously presents the combined viewpoints of the researcher as a local resident, developing community activist, and professional, with increasingly informed views of streets and street design for international station areas, in particular Caledonian Road, near *Kings Cross St. Pancras International* and *Niddastraße* near Frankfurt Central / *Hauptbahnhof*. These streets, the two case studies for this thesis, are studied as urban locales rather than taking the strict commercial view of these centres as self-contained and privately managed stations. Something is learned from this comparison of the two station areas. The particular comparison which was available to the researcher enabled a nuanced understanding of two cultures and two hyperlocal communities of interest, based in the two respective case study streets. The thesis reflects a search for an authentic understanding of the people who live, work travel through and otherwise 'occupy' streets.

## **Research Questions**

The general research question about street design had two aspects. The main question was “how can streets be designed to meet diverse user requirements?” A sub-question was to investigate “how do we understand the diversity of functions that streets facilitate?”

The research question overall set out to investigate designing streets through the professional discipline of street design, and beyond, by directly engaging with users of the street. The gap between guidance and practice on the principle of a “reversed user hierarchy with the pedestrian at the top” (Manual for Streets 2010, p 8) was a starting point. The research compared the professional practice and wider engagement in both London and Frankfurt. Street design is an aspect of urban design practice which can apply to new and existing parts of cities, and is relevant to urban regeneration as physical construction. Integral to the research question throughout the thesis is the question of shared understanding and shared education about streets as public realms in the city. The research sought to broaden the reach of street design expertise by widening and diversifying engagement with stakeholders, considering seasons, night and day, and movement and place in ways connected with users.

The methodology developed and adopted is described in chapter 3 as constructivist and interpretive, and is intended as emancipatory through the participant observation research that was conducted. Central to the walking - constructivism - and listening - interpretivism - is curiosity about the comparison of the street occupations in two places and the cultures of the respective intensively used inner urban streets in station areas.

## **The structure of the thesis**

The thesis is structured in a traditional manner with a contextual review and methodology followed by two case studies carried out between 2009 and 2012. The findings are discussed and the contributions to knowledge proposed in the conclusion along with reflections on the process as well as some recommendations for further research.

This introductory chapter sets out what the reader may expect from each of the eight chapters. The literature is reviewed in the next chapter followed by the methodology, before turning to the two case studies. The case study interview material, a total of twenty extensive diverse interviews in each location, is then analysed and the themes which

emerged from their detailed scrutiny is then set out in the following chapter. A discussion of the findings follows. The concluding chapter condenses and clarifies these findings, forming recommendations. The contribution to knowledge in the area of street design in station areas is then presented in the concluding chapter.

Although streets and pedestrians may seem to be an almost anti-intellectual subject, there is a diverse literature of streets and street design within which street design is defined as a specific spatial practice and cultural phenomenon and a co-production discipline at the centre of urban design. The literature context, which is discussed next, has been set out in three main areas, engineering, design and noir.

Street design is traditionally divided between the highway engineering approach and the urban design approach. A third approach, identified in this thesis as a 'noir urbanism' approach, considers aesthetic and sensory approaches to the street and methodologies which involve engaging with the street from first principles. Accessibility takes on a different meaning when the street is considered holistically for all its diverse possible occupants, rather than solely from a safety perspective.

The methodology chapter '*listening, walking occupying*' introduces a framework and describes a methodological approach which is interpretative, constructivist and emancipatory; the approach is developed from a tripartite framework of research paradigms explained in the methodology chapter. The researcher is situated and design is discussed as a 'wicked' problem, meaning that solutions or resolutions are fluid and changing.

The case studies put the methods developed into action through integrative participant observation in two case study streets, Niddastraße in Frankfurt and Caledonian Road in King's Cross, London. These contexts are described and analysed in context of their present policies and situations and the selection and preparation of a set of interviews is discussed. Against the background of urban analysis of these two sites, the interview strategy was designed to include semi-structured interview questions with a diverse range of street users and agencies in each case, and indeed, the qualitative analysis elicited a strong set of information about the streets in each of their respective contexts. The 28 'nodes' or themes



were developed in the qualitative analysis for both streets, and to allow cross-investigation of the two places in two quite distinctly different railway station areas in Europe.

The discussion chapter develops and reflects on the several main themes of the research findings. There is a review of the findings in relation to the literature. Although there were spatial and physical effects of the findings, much of the benefit of the analysis was the perspective gained on street design process and the critique of policy and ways of engaging between stakeholders and agencies.

The concluding chapter of the thesis identifies the main findings and the contributions to knowledge, which relate to gaps in the literature, and innovative methodology which would improve collaboration between stakeholders. As explained in the concluding chapter, it is argued that the thesis makes a contribution to the scholarly work on street design for station areas and helps us to form a better understanding which will improve street design process and outcomes for the occupants.

Next we turn to the literature review, and consider three areas of the literature on street design; the highway engineering literature, the urban design literature, and the marginal and innovative literature of the noir urbanism, and its relevance to the railway station area.

# context 2

literature: engineering, walking, desiring

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

## ***Introduction***

Literature on street design and on streets in inner-city areas was investigated with respect to how the inner city street could be better understood, to improve street design for inner cities and international station areas, like the chosen case studies, in London and Frankfurt. Three areas of the literature were reviewed; engineering, urban design, and urbanism. The extant literature is broad but is oriented towards normative thinking for practice, transport engineering led process and priority based processes of street design, with a bias toward (motor) traffic and roads, toward daytime use, and rarely in inner-urban street environments combined with complex interchange situations, as is the case with streets near international railway station hubs.

In order to narrow the focus of the literature review, these three areas are reviewed as a framework and a context for current thinking about street design. The general research question about street design was developed with two strands. The central question was “how can streets be designed to meet diverse user requirements?” and a sub-question was to investigate “how do we understand the diversity of functions that streets facilitate?” The research question overall set out to investigate designing streets through the various professions involved in analysing and creating street design, and beyond, by directly engaging with users of the street. Street design is an aspect of urban design practice which can apply to new and existing parts of cities, and is relevant to urban regeneration and sustainability (Farr 2008) as a form of infrastructure. Integral to the research question throughout the thesis is the question of shared understanding and communication; understanding about streets as public realms in the city. The research seeks to broaden the reach of street design expertise by widening and diversifying engagement with stakeholders, considering seasons, night and day, and movement and place in ways connected with users.

While this research was concerned that the thinking of highway engineering, and that in designing streets, efficient motorised movement dominates over ambient, unmotorised and pedestrian place, some indeed claim that place making is the central purpose of urban design. Carmona, Tiesdell, Heath and Oc describe urban design as 'the process of making better places for people than would otherwise be produced' (2012, p 3).

Two aspects of street design are important in this research, and the research questions how design can be improved, as well as how the complex qualities of streets can be understood and interpreted. The latter involves understanding an extant complex environment at a point in time, the other suggests intervening in a complex environment for the future. Like urban design, street design is not something which can be solved in the long term, although changes are often designed to be permanent. Street design can be regarded as a 'wicked' design problem (Biddulph 2012) – a problem which is not durably soluble but it is a constantly shifting problem with many variables which may change independently of one another. The intention of design intervening temporarily or laterally, rather than taking a purely 'engineering' approach to the design problem, is that human occupancy will be enhanced. In this regard human occupations of streets are distinguished from machine occupations by mobile or static objects from vehicles to street furniture to building frontages.

Understandings of design's role in the urban environment, and the similarities and differences between designing and managing streets, are critically important to the research question. Design, urban design and street design are three elements of design in a field which must be articulated further here for clarification. As Cullingworth, Nadin, Hart et al note in their overview of Town Planning (2015, p.356), the literature on design in the planning system is limited, apart from Punter and Carmona's *The Design Dimension of Planning* (1997). Yet vast numbers of texts deal with the context of urban design. Texts introducing urban design are Roberts and Greed (1998) *Introducing Urban Design* and Roberts and Greed (2001) *Approaching Urban Design*. Carmona, Heath, Oc & Tiesdell (2010) *Urban Spaces, Public Places* complements and updates these two in an era in which as Cullingworth et al (2015) note, the streamlining of planning and design guidance under the UK Government's planning policy liberalisation and 'big society' for austerity leaves a design gap where *By Design* (DETR/CABE 2000) once provided guidance.

In the German-language literature on urban design as distinct from town planning, Korda's (2005) *Staedtebau: Technische Grundlagen* is a technical guide to standards for urban design. Reicher's *Staedtebauliches Entwerfen* (2013) can be regarded as a textbook for city and urban spatial planning and urbanism which reflects a difference between the German-language world and the English-language world. The former, *Staedtebau* and *Staedtebauliches Entwerfen* regard urban and city planning as a fundamentally spatial and architectural design activity, while the English-language world and British culture regards urban and city planning rather as a political, consensual and negotiable concept.

Urban design process guides like the comprehensive *Responsive Environments* from the Oxford School of Urban Design (Bentley et al, 1985) and *Approaching Urban Design* (Roberts and Greed, 2001) are complemented by the 24 hour city and night entertainment literature (Comedia 1991, Roberts and Eldridge 2009). The literature which attempts to spatially reconcile movement and place in streets (Jones, Marshall, Boujenko 2008) supporting mixed-use in inner cities (Jones and Roberts 2007, CIHT 2010) is largely based on analysing movement and place characteristics separately, rather than integrating or overlaying them. This thesis tests whether, when brought together, these strands will begin to potentially identify a literature of diurnal mixed-use urbanism for inner city street design.

Design is often associated with subjectivity and mystery in a way in which 'planning' and 'engineering' are not. Transport planning is also structured in a different way as a discipline to spatial planning including urban and street planning. Transport planning was developed for an industrialised urban society based on policies and metrics, while urban and street design and planning are subjective and humanist pursuits. The Oxford Polytechnic group, in their key urban design text *Responsive Environments* (1986) usefully drew urban design ideas into seven key principles which influenced the UK government's urban design manual *By Design* (DETR / CABE 2000). They are the principles of permeability, legibility, variety, robustness, visual appropriateness, richness and personalisation. The most recent edition of the National Planning Practice Guidance (2014) regrettably omits this guidance on the basis that the principles are assumed to be implicit in good design practice (Cullingworth 2015), while the manual *By Design* (ibid) was cancelled. The *By Design* principles for considering urban design are;

1. permeability, relating to the physical ability for occupants to pass through an area
2. legibility, relating to the comprehensibility or understanding of an area
3. variety, relating to the physical and formal diversity (and their sounds)
4. robustness, relating to durability and adaptability
5. visual appropriateness, the harmony of visual and aesthetic continuity in an area
6. richness, relating to grain and quality of material and space, and
7. personalisation, providing clues about human belonging in an area

These qualities are primarily physical, and the research sets out to find how these physical aspects of design are brought together by people in the process of occupying streets. The problem of distinguishing between design (*Entwerfen* or *Gestaltung*) and planning (*Planung*) is also debated in the German literature and the distinction between design as something subjective which is arrived at holistically is compared to rational planning, which has a clearly verifiable and logical set of consequential steps.

The word design has at times been ambiguous in relation to the planning system, but the term 'urban design' has been unequivocally misused and misunderstood, according to Cullingworth et.al. (2015). In the 1970s it was often equated with pedestrianisation schemes. There is no nationally or internationally agreed definition of design (Cullingworth et al 2015 p 356). In the UK context they write that 'urban design' is widely agreed to imply;

“the multidisciplinary activity of creating, managing and improving the urban environment. It brings together and attempts to balance aesthetic concerns with socio-economic and environmental ones and, while it has a focus on public spaces, is not solely concerned with them. In simple terms, urban design aims to create the types of places people enjoy and where they want to live, work and spend their leisure time. It is interested in both the process of producing such places and the product itself”  
(Cullingworth et al 2015 p 356).

Civil engineering, spatial city planning and architecture appear to be professionally more integrated in the German-language world than in the Anglophone world. German-language texts in the broader field of *Städtebau*, urbanism or civic architecture – include *Der Mueller* - The Mueller, a 700 page handbook dating from 1970 (Korda 5th ed., 2005), a guide to professional urbanism practice, like the *AJ Metric Handbook* or the *Neufert Architects' Handbook*. The Mueller offers extensive sections on traffic (*verkehr*, 2005, p215-370) and on public realm planning (*kommunale Freiraumplanung*, 2005, p506-610). A current German language textbook in this area is Christa Reicher's *Städtebauliches Entwerfen* (2013), which defines the city as the container of physical and social life, defines *Städtebau* as urban and regional planning in the third dimension, as further development of the built city, as finding functions of urban spaces, and for spaces between buildings (pp.4-5). Within this framework, *Städtebau* is a discipline guiding process and product; spatial structure and spatial occupation in the city, and organisation and activation of spaces as processes (2013,

p.3). Marshall noted that the schism in urban design in modernism, between the treatment of roads as movement channels, and the treatment of buildings and public space. What applied to the product also applied to the process, and there was a division between design professions. Highway engineers and traffic engineers designed road layouts using the sciences of traffic flow and infrastructure engineering. Architects focussed on buildings as urban sculpture. Street design became subsumed within road design, and was based on scientific design of traffic flow and kinetics of vehicular motion. Engineers were trained in hydraulic and mechanics and practiced road design using these sciences rather than spatial design.

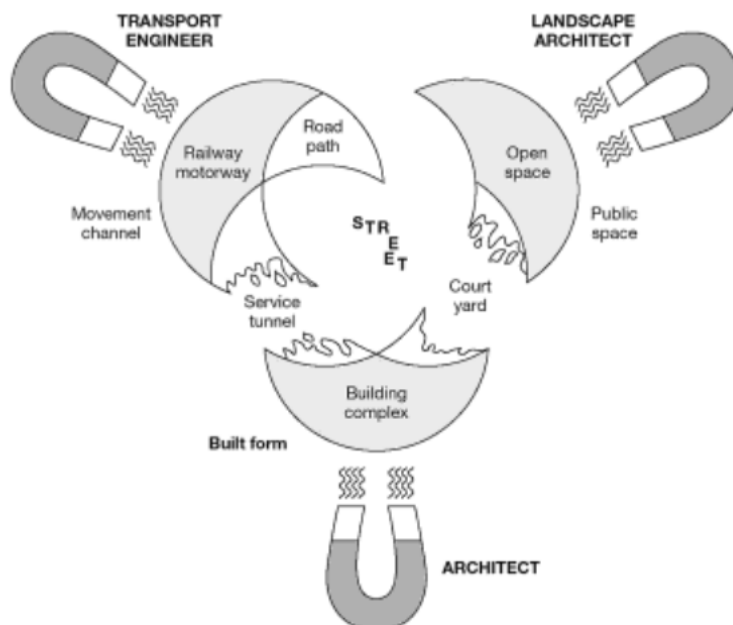


Fig. 2.1. The schism between design professions for street design. (Marshall 2005, p 7)

However, 'urban design', as the same authors note, has also come to infer the "rejection" of modernism. The certainties of modernism and the accompanying unsatisfactory urban conditions which modernist-inspired redevelopment and renewal created in the 1960s are rejected in contemporary urban design (ibid 2015). If this form of post-war renewal can be called modernist masterplanning, the 'urban design' and 'livable street design' designed to counter it must nevertheless incorporate transport planning in street design. Streets in mixed-use areas present an exception or a variation to the residential basis of Appleyard's seminal work on livability in residential streets (1981). However, the principles of liveable

space and human relations between occupants of streets in inner city areas must nevertheless be possible in the 21<sup>st</sup> century.

Carmona (after Jarvis) suggests urban design brings together two broad traditions in design appreciation: 'visual artistic' and 'social usage' into the synthesis of place-making (2014). Cullen's notion of Townscape emphasises the relationship between the interplay of buildings from different periods and the landscape setting that creates visual interest and sense of place (Cullen, 1961). The 'Townscape' concept is criticised for its underplaying of the role of people, and for being picturesque, visually biased in favour of auditory and other senses in the built urban landscape. Kevin Lynch (1960), on the other hand, prioritised the perceptions and experience of ordinary people in his analysis of ordinary places and, with Jane Jacobs (1961), represent what is called the social usage tradition in urban design. This social usage tradition is germane to the urban design literature but not so much to the highway engineering principles of street design.

The literature review here sets out the literature on the urban design and highway engineering aspects of street design relevant to this thesis and expands the review of the literature in the direction of intangible, noir and dark qualities of the street which are rarely considered. The literature provides the background for the primary fieldwork carried out for the thesis. The review makes an assessment of the main extant literature in this area of research, street design, and discusses what is considered lacking. Next, the review clarifies the relevant definitions of terms. Three main areas of the literature are outlined in a historical overview of streets and street design in the literature: movement engineering, place design and noir urbanism. This concept of noir urbanism is framed as a third concern – beyond movement and place – as a way of understanding the attractive-repulsive dark side which is compelling about the inner city street and the station area. This is an area which is not usually considered as part of architecture and urban design literature of streets and which expands the discipline in ways which will be useful for considering the railway station area and especially for critically examining the tension and special qualities of red-light areas and the interchange areas.



The literature review partly defines the parameters of this street design study, reviewing the evolution of a relevant literature to date, some of which has been published during the research. There has been an evolution of our understanding of streets, and of design – and more recently, of streets being understood as designed phenomena. Streets are co-produced spaces, made of social subjects and physical objects. The interactive and social constitution of space is often neglected when streets are designed by engineers and architects as physical solutions to problems. Approaches to street design developed particularly rapidly in the 20th century – from before motorisation to World War 2, and again after World War 2, with motoring-oriented suburban growth. There was a turning point leading to a more enlightened approach towards the end of the millennium.

The more recent approaches to streets – including restoring liveability and walkability and developing shared space – are reviewed, from the turning point which is identified with Donald Appleyard's seminal work *Livable Streets* (1981) to the present. While Appleyard extended the principles of liveable neighbourhoods from Jane Jacobs (1960, *The Death and Life of Great American Cities*) and William Holly Whyte (1980 *The Social Life of Small Urban Places*) in the USA, in the Netherlands, Hans Monderman independently developed liveable neighbourhoods from a traffic management perspective, from 1969 with increasing affinity with shared space principles up until his death in 2008. The discussion below reviews new literature which reflects a wider range of street user engagement in street design, with increasingly complex implications. Contrasting with the hard engineering approach, this chapter describes a literature of street design aesthetics, including soundscapes and noir urbanisms for inner city areas. Consideration is given to the literatures in both German and English, relevant to Western Europe and the Anglophone world. Gaps in these literatures are identified. The differences between the literatures, and the methodology of comparing the literatures, are discussed in the chapter on method, which follows after this review.

## Overview of the literature

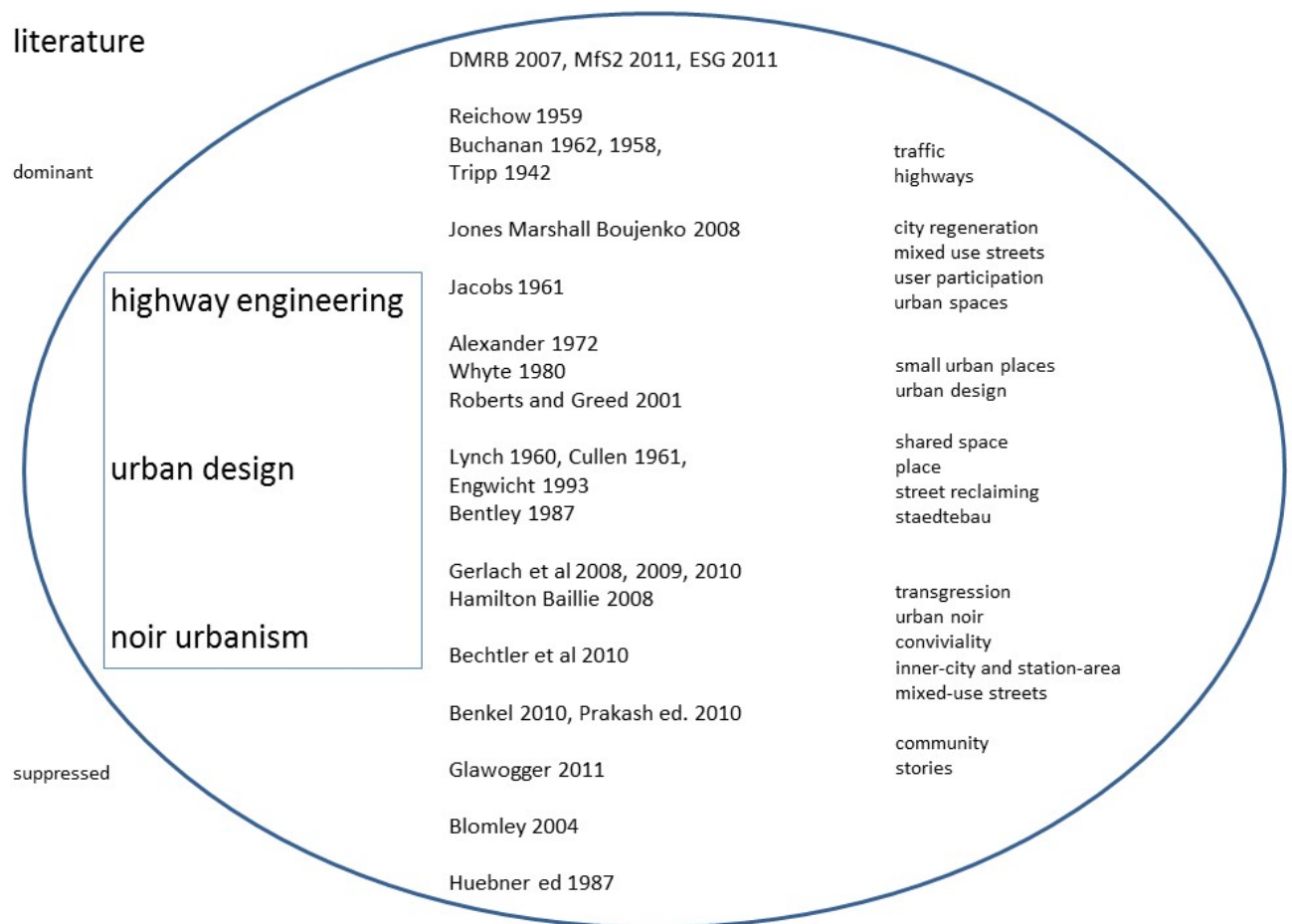


Figure 2.2, Literature 'map': three main themes on the left are developed in this review.

(Drawn by the author)

Streets are part of the urban public realm, which is especially critical to the purpose of inner cities and in station areas, both functional and ambient, movement and place. In a video produced by the main European centre for *Shared Space* research, the voice-over suggests that “in the past few decades, we have become accustomed to traffic determining the use and arrangement of public space, at the expense of our living environment” (*Shared Space* northsearegion, 2011, at15sec). *Shared Space* has become a contentious topic in wider debates about urban design and street design, associated with imposed urban design solutions rather than processes. Designing of shared space above all needs consensus of users, both in design as well as use. Commons or public realms being “treated” with shared space designs would confront or slightly alienate some stakeholders who do not see themselves as active participants in intensely used urban spaces (Bechtler, et. al. 2010).

Understood tacitly as being a publicly owned and managed place, albeit to different degrees by different users, each part of each street has its own particular complex character, including local qualities of movement and place, but in this thesis also of noir urbanism. In the two case studies for this thesis, the characteristics and qualities are understood to continue changing and recalibrating over time, from century to century, decade to decade, season to season and hour to hour. A turning point in post war Europe is identified when planning experts made motorists the dominant users of city streets (Lundin in Hård and Misa, eds, 2008).

The aspiration in the UK about inner city mixed-use streets is reflected in the *Manual for Streets 2* (MfS2, 2010) which advises "considering the needs of pedestrians first" (2010, p7). Although *Manual for Street* guidance replaces that of the *Design Manual for Roads and Bridges* (DMRB, 2008), it is advisory only, and does not set any legal requirement to prioritise walking and cycling in the space of the street. In the UK there is a paradox, that although these recommendations are published and professionally recognised, in the most applicable setting of regenerating and restoring streets in London changes to mainstream professional practice are almost non-evident. Also, the paradox about inner cities is dawning, as outlined in a *Living Streets'* letter of evidence to the UK government select committee (2010), that drink-driving and drug-driving are illegal but not considered as a contributor to violence against other users of the public realm. Conflict between humans in the road, when vehicles are involved, is apparently law unto itself.

Recognition of walking in transport policy seems only a marginal gesture towards improving the pedestrian environment along with public health. For many urban mixed-use streets, pedestrian priority is unimaginable without "road closure" or "pedestrianisation". Although the advice and spirit of *Manual for Streets 2* (2010) and the 'inverted hierarchy' should logically supersede it, the deeply ingrained 'mandatory' application of the *Design Manual for Roads and Bridges*, DMRB (2008 vol. 0, section 2, chapter 1, p1) applies as a default. A comparison can be found in Germany's revised ESG 2011 – *Empfehlungen fuer Strassenraumgestaltung innerhalb bebaute Gebiete* – 'Guidance / Recommendations for Street (Space) Design in Built-up Areas'. The paradox is that street design is based on road system design, rather than spatial place design. This paradox pervades even the Link and

Place method which is frequently referred to in modern street design (Jones, Boujenko Marshall 2007). Street design guidance, often general, broad and tentative, is based on general 'highway' principles rather than on specific contextual application to local places and communities. The process of applying and implementing designs in consultation with diverse users and stakeholders, especially for regenerating existing public realms in inner city railway station areas, will be complex and difficult.

Three main areas of the literature, identified early in the scoping research, are shown at the left of figure 2.1. They are first, the street engineering and design guidance literature like the manuals in the paragraph above. Secondly the urban design and cities literature, with its social and socio-spatial literature of streets and street design spanning from Jane Jacobs' *The Death and Life of Great American Cities* (1962) to the wide-ranging European survey, *Shared Space: Beispiele und Argumente für lebendige öffentliche Räume*, - 'Shared Space, Examples and Arguments for lively public spaces' (Bechtler et al, eds 2010). Each of these first two main areas has a component of grey literature, professional and municipal guidance. Thirdly, a literature of 'noir urbanism' is introduced. There is some overlap between the first two areas, engineering and urban design. Unexpected insights emerged from the field research in the third area of *urban noir*, an area of the street design literature which revolves around the inner city street at all hours being a subjective social construct, rather than literal physical space in light and darkness. This literature review addresses the divide between the first two conceptualisations of street design; highway engineering on one hand, and place making on the other. It goes on to consider the interjection of the third concern, what is here described as *urban noir*, which introduces an unsettling darkness.

The research problem lies in the contemporary literature on streets placing insufficient emphasis on integrating movement and place, but focussing on balancing them unevenly. Pedestrian, non-motorised and other vulnerable street users must be prioritised in railway station areas (CIHT, 2010) while motorised users' movement should maintain journey time reliability and in London 89% is the aim (TfL, c.2008, TfL, 2011, p105) with a complex relationship to average speed and volume in the morning peak. The street design literature has not yet incorporated ways in which noir urbanism works distinctively for inner city streets in railway station areas. This research focuses on station areas with diverse activity around the clock, where these issues and questions are particularly relevant. Partly, there is

an issue with differences between movement and place, and an issue with differences between roads and streets. The first of these is addressed in the literature of *Link and Place* (Jones, Boujenko and Marshall, 2007) setting out an approach to streets where movement on 'links' – sections of streets – is evaluated and compared in a relationship with 'place' qualities. The process of balancing 'link' and 'place' is critical as a step towards design for remediation in highly-trafficked streets in town centres. However, this research suggests that the inner-urban villages around railway stations, like King's Cross St Pancras, are a special case of transport accessible urban spaces (Bertolini and Spit, 1998, p184-287). The roads and streets question is highlighted in the highway engineering literature and grey literature, and the question was central to Einar Lillebye's 2006 dissertation, *The Street as an Extended Road Notion*, referred to below. Transport authorities, despite frequent walking and health initiatives, prioritise motor traffic for maintaining the established fossil-fuel based economy of motorised movement rather than support place regeneration which might constrain motor traffic movement. Public sector investment in the public realm is likely to be politically challenging to advocate for in 'austerity Britain'. In contrast, commercial interests in road freight movement are well represented as in the extra-long freight vehicles trial 2012 – 2022 (DfT, 2012). In inner city areas like London King's Cross, the public highway and road traffic gyratory system seem to be dominated – in the interests of movement – by commercial motorised transport drivers including freight operators. The 'streets' around King's Cross might be functioning more as 'roads'. This distinction between roads and streets, as outlined in the introduction, is of central importance to this thesis.

Considering street design in general, diverse design disciplines have evolved in the 20th century around *Strassenbau* (road building) and *Strassengestaltung* (street design), *Strassenarchitektur* (street architecture). *Bau* – building or construction is a pragmatic word for physical and technical composition, in contrast with architecture or design, relating to design conception. As this brief introduction suggests, in order to understand the ways that streets around stations function we need to work through a series of complex tensions. In order to do so, it is important to begin by exploring how the literature has understood and subsequently informed the design of streets. It is to this subject the discussion now turns.

## The evolution of a literature of Street Design

The evolution of an empirical literature of engineering streets in European built environment culture can be traced back to the Roman architect and engineer Vitruvius. His work of antiquity, *The Ten Books on Architecture* (Hicky Morgan, 1960) incorporates all aspects of city building and streets, along with moving elements such as pumps and war machines which are used as an integral part of city design and management; construction and deconstruction. The instability of the city is already alluded to in Vitruvius' work, with the inclusion of various machines in his Book Ten. It describes many uses of water and movement including siege machines; catapults, scorpions (*scorpiones*), ballistae, and the tortoise - a battering ram. The 'unsettling' aspect of conflict in city-making is played down in Hicky Morgan's (1960) and Stuerzenacker's (1938) editions of Vitruvius, as in much of the streets literature. As Bernard Cache points out (Frivot and Lee, 2013, p98) the 'war machines' were central to Vitruvius' real-life work and are a central part of Deleuze's thinking in *Nomadology: The War Machine* (1996, p1). "The war machine is exterior to the state apparatus" (ibid). Machines, however the unsettle the city, are a critical part of the processes of civilisation and occupying the city. What makes parades and political encampments more unsettling than motor traffic? Blomley (2004) suggests the unsettling movements help to establish the ethics of the city by challenging them. Vitruvius' work and its influence has had pervasive role in literature of architecture and architectural theory for hundreds of years. Yet as Marshall has shown, highway planning and engineering has increasingly become separate and discrete from the architecture of the city.

Although streets are a key component of urban form, and a public form of space and art, there are surprisingly few reviews of the general range of literature on streets. One appeared in a special issue of the journal *Places*. A review entitled '*Those Books on Streets*' by Eran Ben-Joseph (1997), followed publication of his own book on streets with Michael Southworth; *Streets and the Shaping of Towns and Cities* (1996). Putting that 1996 book in context, the review in *Places* maps out the key authors in the streets area, and tracks a multidimensional interest in streets from Charles Mulford Robinson (1911) via Moudon (1991), Appleyard (1979) and Anderson (1978), Rudofsky (1969), to Allan B. Jacobs and Seattle (1996). In the review, Ben-Joseph (1997) describes the emergence of rigid frameworks of standards and regulations, arguing that these should be challenged with a

more flexible design process. Ben-Joseph claims that "street plans often exclude a social position and architectural design intentions" (1997, p95) and apparently addressing professional and bureaucrat readers through the professional journal, suggested we find "a compromise between conflicting professional and bureaucratic approaches" (ibid).

A decade and a half after the publication of the above review in *Places*, and with an abundance of new guidelines in the last few years, policy seems to be attempting to catch up with thinking about streets for mixed-use inner city areas. Pedestrian 'priority' by means of a 'inverted' design hierarchy is proposed to promote more liveable 'pedestrian friendly' street design in the new guidance from New York's Department of Transportation, in its *Street Design Manual* (NYDOT, 2011), similarly as it is in the UK *Manual for Streets 1 & 2* (CIHT, 2010), and in Germany's *Design Recommendations for Street Design in Built-up Areas* (ESG, 2011).

A large part of streets and street design literature is the mainstream highway engineering and urban design literature, which focuses on the street as a physical component of city form. Urban design and streets are physical elements of the city's composition, navigation and spatial permeability and legibility for users. Although to some degree these can be physically engineered, there is also a critically important distinction between road and street. Einar Lillebye's doctoral thesis *The Street as an Extended Road Notion* (2006) at the Norwegian University of Science and Technology, outlines in detail the ways that a street is different and more complex than a road. The specific place-based and time-based ways in which pedestrians use streets and cross carriageways, and the focus of street design on traceable connections with human behaviours, rather than on generalised patterns of technical solutions, is a key problem which goes beyond this research (2006, p26-27).

Considering the technical as well as the experiential qualities of streets requires returning to the beginnings of the modern industrial city. The main features of the twentieth century literature on streets range from Camillo Sitte's 1909 work *Der Städtebau nach seinen künstlerischen ansätzen* (2002) *Urban Design according to Artistic Principles*, through to Le Corbusier's works on modern city planning; *Vers une Architecture* (1923), *Plan Voisin* (1925) and *Ville Radieuse* (1935) and including *The Charter of Athens* (1942). Camillo Sitte illustrated the impact of adjusting inner city public spaces with examples in Vienna, criticising the bombastic formalism of beaux-arts layouts, and favourably reassessing

medieval urban spatial layouts. Le Corbusier's view of the revolutionary space and time-shifting potential of the automobile led to his development of an automobile-centric vision of planning the modern city. It is this machine-centred view that contemporary urban design critiques.

The post-war reconstruction period took on a different phase in the literature, which continues below. First we move to a more theoretically-based evolutionary view. As an example of the evolution and emergence of a modern concept of the street, Anthony Vidler's essay, *Scenes of the Street* (Anderson, 1978 and Vidler, 2011) connects the built architecture and systems of the city and urbanism with the advent of the twentieth-century street. Tracing the emergence of modern cities between 1750 and 1871, accompanying the industrial revolution in the UK and the political revolution in France (1973, p29), the emergence of the street is written as a theatre of emerging urban identity. "Riots and festivals" (42) "draining and cutting roads" (58) and planning for "health and welfare" (60), in sections describing the construction, consumption and destruction of the city, are all played out in the emergence of the street as a component of the modern city. Vidler's approach to the history of the street is that it is a collective armature of the city, a social and communal network of people and urban place. The mixed-use street, especially, is a social and a physical structure like an armature which attracts and connects diverse people who 'live' in a geographical relationship, whether their interest or 'stake' may be in residential use, commercial, office, entertainment or any other use of the street. The connection is shared and co-produced by these stakeholders, and therefore the street is a concept which is 'produced' by its conscious occupation.

Vidler's approach may be compared with those of the essays in the collection *Streets: Critical Perspectives in Public Space* (Celik, Favro and Ingersoll, 1994). The latter is a collection of essays on streets from a 'world history' perspective dedicated to Spiro Kostof's thinking about cities, surveying streets as a primary ingredient of urban existence in a range of cities. The study settings range from London to Istanbul, Athens to Rome and Cuzco to Tripoli. In this world history way of thinking of the public space of the street, thinking also comparatively of the theatre of the street in cities, streets are backdrops and armatures for geographically based social relations in cities. From the London riots of August 2011 to the Bikes Alive protest discussed in the King's Cross case study, occasional and also quotidian



occupations of the street all contribute to the formation of the street, and these events and actions have highlighted and called into question ownership of urban public space in a tradition of ongoing processes connected with those discussed in Blomley's *Unsettling the City* (2004).

Besides movement, reverberators in Vitruvius' guidance to designers are used to enhance the environment. Vitruvius describes brass vases called *Echeas*, used in Greek and Roman theatres. "Bronze vases are to be made in mathematical ratios corresponding to the size of the theatre". Augoyard and Torgue, citing his '*De theatri vasis*' note the description of acoustic resonators in the form of acoustic vases in Greek and Roman theatres, which voids would be "tuned to the fourth, the fifth and the octave" (1960, p143-145). Chapter V of Vitruvius' Book V follows a chapter on harmonics, an "obscure and difficult branch of musical science... for those who do not know Greek" (1960, p139). The principles of resonance and musical harmonics might equally be applied to the theatre of the street. The voids of inner city streets, underground railways and underground service spaces, play a subtle part in the acoustic qualities of the street. In inner city mixed-use areas, and in station areas, there is particular potential. If not acoustically practical, unused voids like the memorial section of track below the Regent's Quarter in King's Cross are also part of a *noir* underground life of the city. Vitruvius' work explored the role of sound in these contexts of civic architecture, but the discussion seems to have now fallen out of the mainstream discourse on architecture.

#### *A lament for movement, embedded in architecture*

Vitruvius' *Book Ten* relates to machines which are used in making and unmaking the static order of architecture and the city. Theorist Catherine Ingraham suggests that in Vitruvius, a "lament for movement is embedded in static architecture" (Ingraham, 1992, p10- 14). This seems to be true of the street architecture. Vitruvius conceptualises the city, street and architecture together as one. Ingraham notes that *Book Ten* is played down or abbreviated in modern translations of Vitruvius like Morris Hicky Morgan's edition (Hicky Morgan, 1960). The 1938 German military service edition of Vitruvius shows *Book Ten* edited down to little more than a footnote (Stuerzenacker, 1938).

In Vitruvius' time, the sense of place in the public realm seems to have still been implicit in the order of the city. In the process of increasing motorised and technologies movement in inner cities from the late nineteenth century to the twenty-first century, there has been an unsettling effect on the sense of place found in inner city streets. Inner city streets have increasingly become spaces for movement, while the human desire to dwell or to 'live' has been neglected, trivialised or dismissed. The sense of place in the street has largely become de-localised in mixed use neighbourhoods especially in the period after the second world war and this is still evident today (Jones Roberts Morris 2007).

A bifurcation between movement and place seems to have gradually increased as a side-effect of the fossil-fuel-driven motorised road movement economy. Fossil-fuelled vehicles were not first to use the streets; for a long time urban streets were the domain of private transport including bicycles and horse-drawn coaches and increasingly of public transport, including steam-driven tramcars and buses on the city street (Hebbert 2005, Reid 2014).

In the 21st century, as the inner city becomes more densely occupied and connected with international rail travel in European metropolises like London and Frankfurt, sense of place and sharing place and space in transport exchange areas beyond stations becomes increasingly critical. The importance of place identity and distinctiveness, and of shared place making or place shaping in the public realm with stakeholders is something this research aims to investigate. The concepts of 'sense of place' and 'belonging' have particular poignancy for local communities and for enabling a sense of a neighbourhood in inner city areas, particularly those which are intensively used.

The inner city street is under increasing pressure, as a special component of urban form. Urban areas have grown internationally and their character has changed. The design and regeneration of inner city streets – where interurban city movement systems converge on the locations of historic neighbourhoods are the locations where the growth of the late twentieth and early twenty-first centuries has privileged movement over place. This thesis holds that this has occurred especially in inner city station areas, and that there is a need to redress the balance.

The street is an urban concern, connected with 'built-up' areas where a movement function is balanced with a public realm function (Selberg, 1995, p115). The world's population is

increasingly urbanised, and according to the United Nations, has now become predominantly urban. The tipping point was reached in 2008, a point when the world population had become over 50% urbanised (UN 2008, 2011). The occupation of the inner city street and its design are influenced indirectly by this international trend of urbanising populations, in the sense that urban public realms are under greater pressure of occupation, and inner city streets, while accommodating denser moving populations and closer scrutiny by an increasing population, are also according to some studies, in general decline as out of town superstores and online shopping replace some of the functions of the local high street (Roberts, 2009, p50).

As a corollary of 'urbanising populations' in the global trend of urbanisation, urban streets too must become more populous and popular. Urban populations are self-defined by each country as being 'urban' for local standards (UN, 2008, 2011), and the urban street, has become a place of increasing importance for urban physical communications – for what in turn has now become the majority of the world's population.

The changing demands made upon streets as urban public realms, as well as spaces of movement, have become critically important in urban centres at this moment in history. With the world's urbanised populations now being in the majority, the highly developed western European city centres could be leading by example for sustainable and liveable urbanism globally. While much urbanisation is occurring on peripheries and in small settlements, a greater pressure of density is now placed on streets in inner city railway station districts of metropolises. Gaps exist in the street design literature with regard to overlaying the occupations of these mixed use streets to provide convivial walkability and liveability for long term urban sustainability (Bechtler et. al. 2010, Fresch und Reschl 2011).

### *Engineering literature*

First, we have the formal approach to streets, central to the professional discipline of highway engineering, as 'traffic control' emerged as part of town planning in the wartime (Alker Tripp 1938, 1942) and as embodied in the Buchanan report, *Traffic in Towns* (1961). The history of turning streets into roads to make them more 'motoring friendly' follows the wartime and post-war construction, and the government-produced grey literature on

streets responds to the changes, while aiming to guide communities which are increasingly under-resourced.

Buchanan, a military civil engineer who had served in Sudan before joining the Ministry of Transport, had written *Mixed Blessing- the Motor in Britain* at a time of rapid post war expansion of motoring, "to survey the impact of the motor vehicle on our society" (Buchanan 1958, p v). He sensibly warned against "seeing the problem as no more than keeping traffic on the move", and carrying out "street widening... could tear the hearts out of towns" (Buchanan 1958, p210).

In the theoretical basis for the major report *Traffic in Towns*, Buchanan reported that the "function of the road network would be to serve the environmental areas" (1963, p60). He wrote that "traffic and roads are not ends in themselves, but they are services only. The end is the environment for living and working". This aligns with functionalist thinking of the time in Louis Kahn's idea of segregating served and servant spaces in architecture (Gast, 1999, p 11). Environmental areas would mean areas with "comfort convenience and aesthetic quality for living" (1963, p 252). Intentionally or not, the environmental priority principle was lost in the inner city area. The principle was used increasingly to segregate motor traffic types in cities. 'Traffic calming' infrastructure was increasingly used to move vehicle traffic from smaller residential access roads onto larger distributor roads. By segregating trunk roads or distributor roads from access roads in the inner city, the liveability of mixed use neighbourhoods around trunk roads and high streets worsened disproportionately. Former village centres in conurbations like London increasingly deteriorated.

In Germany, the corresponding literature of *Die Autogerechte Stadt- ein Weg aus den Verkehrschaos* (Reichow, 1959) – 'The Automobile-adapted City – a way out of the traffic chaos' (transl. Cowan), had similarly recommended segregation and hierarchy as a means for designing urban areas which would be able to cope with increased motorised movement.

Returning to the postwar highway engineering, the shared space literature began to develop from residential areas in the Netherlands soon after the architect-highway engineer Reichow's *Autogerechte Stadt* (1959) gained favour in Germany, *The Buchanan Report*, *Traffic in Towns* (1963) was a controversial trial of motor-enabling road planning, and yet

also in the early 1960s, the wisdom of (motoring-dominated) highway-centred redevelopment of cities was questioned by writers such as Jane Jacobs in the previously discussed *Death and Life of Great American Cities* (1961), and Christopher Alexander's *Pattern Languages* (1966). In contrast to the more engineering inspired view of streets as movement, Jacobs saw streets as the social networks, the 'lifeblood' of cities rather than as mere (motor-)traffic channels. Christopher Alexander similarly saw streets as multi-functional urban 'patterns' (1966).

Marshall's (2005) *Streets and Patterns* defends Buchanan's good intentions. Buchanan "always intended that standards for environmental quality be unassailable, and fixed first, before fitting around this provision for accessibility" (Marshall, 2005, p247). He argues that "since the early nineties, movements such as the New Urbanism have drawn attention to the problem of roads-driven disurban creation..." (Marshall, 2005, p9). Criticisms of the influence of highway engineering on urban layout, focus on "slavish adoption of mechanistic standards" (Jenkins 1975, p17) and "standardised, often uniform solutions" (Carmona 1998, p180 cited in Marshall 2005, p12, 261-2). Marshall's book on streets and patterns, although criticising the loss of pedestrian quality, perpetuates the notion of streets as systems and patterns more than as social entities. This book, as Marshall writes "builds on the principle of hierarchy, but adapts and 'evolves' it to suit contemporary needs" (Marshall 2005, p247)

In *Streets and Patterns*, Steven Marshall argues that, as a result of the disassembly of the components of the street and the fragmentation of the work of transport engineer, landscape architect and architect-urban designer, street design has become "subsumed within the specialist discipline of road design – based on traffic flow and vehicular kinetics" (2005, p7). The legacy was that roads and streets were thereafter designed by engineers trained in hydraulics and mechanics, rather than by architects trained in spatial form and aesthetics, or by planners versed in arts of the public realm.

### *Resistance*

Some theorists of streets pushed back against the modernist attempt to separate and define streets as places of movement. Alternative literature such as the literatures on shared space and on reclaiming streets – effectively as methods or strategies of street design and management – were developed from various perspectives, including Ben Hamilton Baillie on

shared space (2000, 2011), and David Engwicht on "*Reclaiming our Cities and Towns*" (1993) *Street Reclaiming* (1999) and *Mental Speed Bumps* (2008) and these provide ways forward based on tested campaigns.

Shared Space is a method of designing public space by consensus between users (Bechtler et al 2010). The ideal is that despite their various power and weight and speed characteristics, users of a space will do the right thing in ambiguous spaces as they do with highly controlled and mechanised streets, which generally favour machinery. The notion of re-humanising the control over space is controversial because regulation is reduced and ambiguity is increased, requiring better communication. The benefit of increased communication – a way to reduce risk – is the increased human liveliness of such spaces.

Hamilton Baillie has been one of the key advocates of Shared Space in the anglophone world since 2000, and especially when the collaborative EU project on shared space was initiated in 2003 (Interreg North Sea Region Programme, 2008), collaborating with Dutch traffic engineer and urban shared space pioneer Hans Mondermann. Through a major journal article on Shared Space in *Urban Design International* (Hamilton Baillie, 2008) and a diverse range of publications and press campaigns including video campaigns (Hamilton Baillie, 2009, 2011, 2013), Hamilton Baillie argues that shared space designs gives credit to the intelligence of all users of the street, in lieu of engineering to cater for the worst possible behaviour of vehicle operator and pedestrian. In "Shared Space: Reconciling People, Places and Traffic," he writes that these experiments challenged "many long-standing assumptions concerning the ability of people, whether drivers, bicyclists or pedestrians, to resolve potential conflict through informal protocols and human interaction" (2008).

Freed from the conventional regulatory framework of traffic-signals and rights-of-way, all the various participants in the constantly moving dynamic of the space appear to adopt a remarkable range of anticipatory and communication skills." In addition, these models seem to promote an enduring spirit of "civility, patience and courtesy (Hamilton Baillie, 2008b, p.171).

John Adams suggested in his 2007 article "Shared Space - would it work in Los Angeles?" that;

since the advent of the car [highway engineers] have planned on the assumption that car drivers are selfish, stupid, obedient automatons who had to be protected from their own stupidity, and that pedestrians and cyclists were vulnerable, stupid, obedient automatons who had to be protected from cars - and their own stupidity. Hence the ideal street was one in which the selfish-stupid were completely segregated from the vulnerable-stupid (Adams, 2007, p1).

The same author wrote about self-driving cars, that these cars' automatic response to obstructions in the road – such as a ball or a child – would mean their artificial intelligence would be insufficient to distinguish between many of the moving things occupying streets. He suggests driverless vehicles could only ever operate in a completely controlled environment (Adams 2015).

The Shared Space literature (Hamilton Baillie, 2011, Bechtler, et.al. 2010) suggests an area of urban design and street design in a similar direction to pedestrian-oriented and livable streets. Shared Space process suggests ways of making places which are traversable, and presents alternative models of inner city street design to what may be termed “full pedestrianisation”. A model of physical shared space street design has not yet been specifically tailored for station areas, there are urban space typologies in Switzerland and Germany - *Begegnungszonen* Encounter zones, and *Spielstrassen* play streets, which would apply more easily to station areas than residential Home Zones as they are called in the UK (Bechtler 2010).

The progress report guidance issued in 2014, following the report of London's Roads Task Force in 2014, provides a set of street types called "London's street family", and states that Transport for London is committed to "encourage boroughs to adopt street types to their roads by 2015" (TfL 2014b p 13)

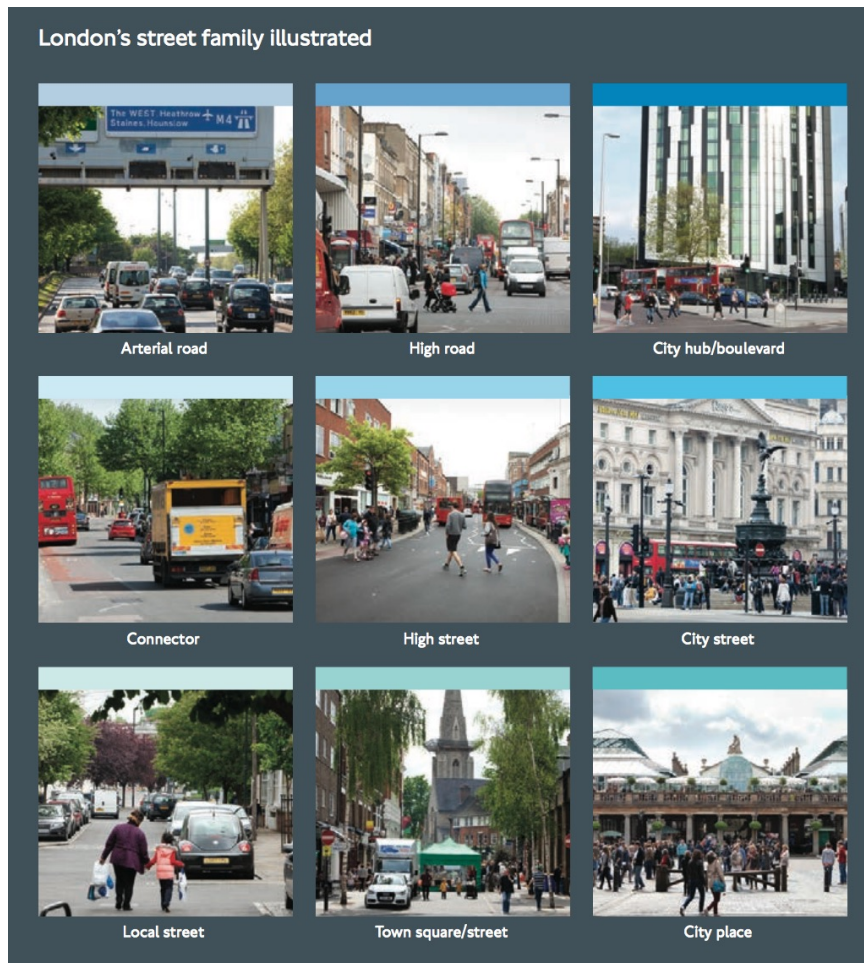


Fig. 2.3, London Street types (TfL 2014b)

Transport for London's taxonomy of street types provides a matrix of nine models of street as part of the road network as a means of designing for "balancing the movement of people and goods with the quality of the urban realm" (TfL 2014b p 12)

Before moving on to urban design literature relevant to this study of street design, part of wider thinking about universal accessibility includes thinking about street design with alternative senses. Blind and deaf perspectives, including those of partially blind and deaf street users, provide a way of considering street design accessibility of benefit to all street users. An example of literature in this area is in the direct action auditing work of Wolfgang Kremser (2004). In Kremser's work on hazards for blind people in the public realm, all of the fundamental first-hand design principles can be brought to bear in the specific local user's experience. Rather than setting principles, Kremser does primary research fieldwork, identifying hazards in the relevant environment – an approach which seems preferable to, and more direct, than desk-based compliance, checking proposals against abstract



standards and regulations (Kremser 2008, p18). The approach is essentially psychogeographical rather than bureaucratic and desk based.

### ***Urban Design***

In contrast to much of the literature explored above, David Engwicht takes a direct action and community engagement approach to 'traffic taming', injected with Australian humour. Engwicht, self-educated planner and founder of the grass roots neighbourhood organisation CART, has published many books and is known for a performative presence and theatrical strategies, with a wide range of training and facilitation activities. A few years after publishing a booklet "Traffic Calming" Engwicht published *Reclaiming our Cities and Towns: Better Living with Less Traffic* (1993). As a consultant, Engwicht brought his view on Placemaking to city agencies and communities throughout the UK, Italy, Canada, USA, New Zealand and Australia. In 1994, with Brisbane City Council, Engwicht conducted the world's first study to make a connection between techniques used for garbage reduction and for traffic reduction. Engwicht made an interesting "accidental discovery" in 1996: the speed of traffic on residential streets is governed, to a large extent, by the degree to which residents have psychologically retreated from their street (Engwicht, 1999).

This insight, and many others, became part of a 1999 publication called *Street Reclaiming: Creating Livable Streets and Vibrant Communities*, which proposed that streets be treated not just as corridors, but also as places for community building and as "engine-rooms of robust local economies" (2013). In 2001, Engwicht conceived and implemented Red Sneaker Week in Brisbane, Australia – a program that encouraged children to walk to school. In 2004 Engwicht met the late Hans Monderman and subsequently became involved in the Shared Space experiments in Europe. In 2005, Engwicht published "*Mental Speed Bumps: the smarter way to tame traffic*" (2005) a book that combined his personal experiences with instant street reclaiming with insights gained from working with Hans Monderman in Europe (PPS nd).

*Shared Space: Beispiele und Argumente fuer lebendige oeffentliche Raueme* (Bechtler et al, 2010) 'Shared Space: Examples and Arguments in favour of liveable public spaces' (transl. Cowan) elaborates comparatively in terms of shared space processes and outcomes, and addresses improving liveability in specific Western European inner city streets. It analyses important shared space case studies throughout the continent, including the towns of Sneek, Siegerswoude, Haren, Drachten, Bohmte and Bruehl, and for comparison, the equivalents in London, Austria, Switzerland, France and Belgium. The discussion part

considers the changing paradigm of space planning culture and some disability and legal implications. However, the area of inner city transport interchanges and railway station areas is not specifically addressed.

In contrast to this focus on the social aspects, disability and liveability, most of the mainstream street design literature has a theoretical bias in that it is concerned usually with generalised approaches to designing streets by guidelines rather than designing specific places by first principles. In this sense, street design guidance from public sector authorities is more generalised, applicable to the 'road network' than is urban design or place shaping. The engineering design processes familiar to highway engineering are inherently more rule-based and generalised rather than pragmatically place and context-based. Some of the pivotal literature begins to address this problem. We come, then, to a 'place' based approach to street design: rarely used in highway engineering, yet central to urban design – as a social, and socio-spatial approach to the urban environment of the street. This approach comes from the established urban design literature applied to streets, including for example, *The Social Life of Small Urban Spaces* (1980), and *Pattern Language* (1977).

W. H. Whyte's *The Social Life of Small Urban Spaces* (1980) and Christopher Alexander's *A Pattern Language* (1977) each provide socio-spatial and environmental ways of conceiving streets. Thinking of streets via their social lives is a way of understanding streets as social anthropological phenomena. As the professional practice literature of street design since the Buchanan Report has leaned towards hierarchy, engineering and safety, there has often been insufficient attention to balancing the physical guidance with calibrating mood, aesthetic and the social attractiveness of streets as small urban spaces (Whyte, 1980).

*The Pattern Language* (Alexander et al 1977) provides patterns for such spaces with desirable characteristics to be aimed for. These are illustrated in Alexander's patterns 8, 32 and 33, for example. Pattern number 8 is a 'mosaic of subcultures', which suggests a diverse inner city community. Pattern number 32 is a shopping street, pattern number 33 is night life; the former is considered as part of the limited scope of the recent *Portas Review of High Streets* (2011), the latter is usually considered primarily to be a policy matter rather than an object of design and planning, except for *Planning the Night-Time City* (Roberts and Eldridge 2009), and in the case of the Frankfurt tour and party, "*Bahnhofsviertelnacht*" – railway station quarter at night. Shopping street and night life as adjacent patterns are two

that may be applied to inner city station areas for mixed-use streets. Adding to the literature in this identified gap, beginning with this literature review, provides background for the field work, and will be the basis for developing new street design knowledge.

After World War 2, in the context of accelerating reconstruction and regeneration in Europe, accommodations to motoring in city planning included the Buchanan Report in the UK and Reichow's guidelines Germany respectively, using segregation and separation of public space to facilitate free flow of traffic. Trunk roads and distributor roads would in principle be separated from environmental areas where possible and this began to be implemented, with disastrous implications on liveability of inner city streets, where the free flow of traffic concentrated at the expense of pedestrians.



Fig. 2.4 Pedestrian Bridge, Friedrich Engels Platz, Leipzig (nd c.1950) from the German Federal Archive by Waltraud Grubitzsch n. Raphael

Two of the key authors appearing in the streets literature of resistance are Jane Jacobs, who campaigned against expressways destroying street life in New York and who wrote *The Death and Life of Great American Cities* (1961) based in New York, and Jan Gehl with *Life*

*Between Buildings*, (1971, 1987) and his many successive illustrated books on liveable modern public space (2000, 2004, 2006, 2010). Gehl's principles, tested in Copenhagen and internationally, have been adopted and applied far and wide, including pedestrianisation schemes in Perth, Australia. Jacobs became the role model of community activist urban planner, effectively recalibrating the possibilities for planning professionals through grass-roots concepts of street planning and design, including eyes on the street, uses of sidewalks; safety (1961, p29), contact (p55), and assimilating children (p74), and the idea of 'gradual' vs. 'cataclysmic' investment (p291).

For the purposes of this study, the mainstream icons of the postwar anglophone urban design literature, Kevin Lynch's *Image of the City* (1960), and Gordon Cullen's *Townscapes* (1961), both lend further guidance to analysing and redesigning inner city streets through urban design. Lynch's iconic book on urban design develops the idea of urban imageability, with recognisable elements like nodes, edges and landmarks, which can also be applied to street imageability. Cullen's townscape principle brought a new visual aesthetic to reading the city which is also applicable at the level of streetscape, conceiving the street as a multi-dimensional microcosm of the town or city, much more than a movement system.

*Responsive Environments* took a wider approach to analysing urban areas and designing responsively to users, but like Lynch's *Image* and Cullen's *Townscape*, offers frameworks without addressing, at a pedestrian scale, the localised urban space of streets and specific low-level relationships between and with passing motorised users. Urban design guidance tends not to be time specific, and in inner city areas like station areas, design for the night time city needs to be extrapolated from the scant planning guidance and from the literature on night time cities (Roberts and Eldridge 2009, Lovatt and O'Connor 1995, Schivelbusch 1995, Schloer 1998).

The Urban Design London 'Slow Streets Sourcebook' provides examples of 'Elastic Streets' where temporary change is used to test design proposals in full scale (UDL 2015 p 9)

We have considered the highway engineering and urban design approaches and the opposition of these increasingly discrete and separated city-making disciplines, partly based in the separation of the professions through misunderstanding Vitruvius. Now we turn to examine the noir, the dark side of streets: social and physical darkness as a metaphor.

### **The concept of the urban noir**

#### *The social construction of the street is fundamental*

The social construction of the street is as fundamental to its construction as a physical place, and this research focuses on the street and everyday life, participation in street analysis and street design, and phenomena such as pleasure and panics in streets at night. The history and cultures of the "*Reclaim the Night*" and "*Reclaim the Streets*" movements in Britain are documented from the sixties to the early 21st century in many sources such as Hayduk (1999) and George McKay (1998). Aspects of pleasure in streets, (Rendell, 2002) and of contemporary 'public panics' about the lines of civil and uncivil behaviour (Eldridge 2010) have been developed in literatures of the social in both London and Frankfurt. The literature of *The Ludic City: Exploring the Potential of Public Spaces* (Stevens 2007) and *Sexual Pleasure* (Collins 2006) aspects of the city street cannot be explored fully here but would be areas for further investigation in terms of their contribution to the noir street. Play and sexuality in the street could be more broadly defined, as areas of the literature which too rarely overlap with street design in Western European cities, and street parade cultures of carnival are worthy of greater attention in street design. Sexual pleasure, for example is an aspect of inner city streets rarely considered as part of highway engineering, but is one aspect which persistently creeps in to the inner city railway station quarter (Huebner 1987).

#### *Night time economy in streets as a noir aspect*

The city and the mixed use street originates as a meeting place and a market, and has the characteristic of a spatially defined economy. Similarly the night time economy is a specific element of the city. The night time economy in inner city streets is historically persistent, and in some cities is managed and distinctive, in others secretive and ignored. The thesis considered whether night time economies, investigated by Hobbs (2005) as bars, clubs and fast food industries, but expanded to include a wider range of around-the-clock services, can play a critical role in street design and management, as they did in a study of London's Soho (Roberts and Turner 2005).

#### *Ludic Spaces*

In the abovementioned book, *The Ludic City* (2007), Quentin Stevens considers the ways in which urban space plays a part in play. He defines play as the non-functional and extra-

functional uses of space. In play there is a senselessness and lack of a political agenda which brings some forms of carnivalesque street theatre into light. The Critical Mass nine were arrestees from a large group of cyclists who – intentionally or otherwise – tested this political line about carnivalesque play and ‘serious disruption’ at the time of the London 2012 Olympics and were prosecuted in court. 182 cyclists were arrested on the opening night of the Olympic Games because of the police’s fear that the cyclists would cause disruption, invoking the Public Order Act. The Critical Mass cycle ride, an informal monthly celebration of cycling in public spaces in London which has occurred since 1994, is part of a global movement celebrating cycling. The ride is based on the group cycling safely on public highways and roads as part of the traffic, rather than as an event, gathering or protest. A Police attempt to ban the impromptu London Critical Mass ride was overruled in the House of Lords in 2008 as not requiring police permission for a public parade or protest. The House of Lords ruled it was exempted because it is a “customary procession” even though its route changes every time (Press Association 2008). In 2012 the Police tried to prevent the ride with road blocks and kettling, and of the 182 initial arrests, nine were criminalised as a result (Richards 2013).

In *The Ludic City*, Stevens shows that paths, intersections, boundaries, thresholds and props all play their part in different ways for humans to react with architecture in the city and to be able to play. The possibility of the unexpected or spontaneous act in the theatre that is the shared public street remains as a core principle of what makes the city attractive. Stevens cites skateboarding (2007, p146), spontaneous dancing (2007, p156, 171) and teenage transgressions (2007, p138-9) as examples of these unpredictable acts in the city. In the book *Noir Urbanisms*, the example of a busking shamisen player depicted in Tokyo Punch (Prakash ed. 2010, p199) is an example of urban play, writ as dystopic urban play. The troupe depicted combines an unsettling noir quality of repulsion with the spectacle and music.

However planned a street may be, the human social aspect persists. The senior moment described in Ben Hamilton Baillie’s video of London Seven Dials (Hamilton Baillie, 2011) where a pausing elderly pedestrian is politely awaited by a turning taxi driver in Seven Dials shows that ambiguity in the public realm can enable civility to emerge. This is despite the

Department of Transport's research finding that users of Seven Dials overwhelmingly felt that motorised traffic has precedence (DfT/MVA 2010 3.4).

### *Vice*

The complex attraction-repulsion-compulsion of noir as an aesthetic is separated from vice only by a thin line in the noir inner city street for local and visitor. Some visitors come to inner city interchange areas, willingly or not, to transact illicitly and face life-threatening risk – others eat, work or observe within a perceived bubble of protection against 'otherness'. In regard to this study, a review of literature of vice began with Benkel's *Das Frankfurter Bahnhofsviertel: Devianz im Oeffentlichen Raum* (2010) which outlines the nature and motivations of 'deviant' behaviours in the public realm. The literature on criminology of urban space frequently refers to use zoning and defensibility of space (Cozens, 2011, p.482). A *Design Against Crime* unit at Central St Martins College in London focuses on diverse measures; from improving chairs, bags and cycle stands to graffiti (CSM, 2013).

In theory, the 'noir' city is one with contrasts of light and shadow and with inherent levels of (perceptible) danger and excitement. It is one where 24 hour-city activity comprises difference rather than only efficiencies. Diversity is also associated with the frisson of 'otherness' and the whiff of the illicit or of vice. The relevance of adult play and illicit play to the street scene are addressed broadly in literature of the noir street, as social problems of the city, and referencing the street as the default public realm of the city, yet this literature rarely intersects with the highway engineering or urban design literatures. Social problems of the city are mostly avoided in the guidelines for streets, and there was some amusement from a civil engineer colleague when the author suggested the inebriated pedestrian, as frequently encountered in many public realms on Friday evening in London, might represent a criterion for street design which is more legally and socially desirable than inebriated vehicle drivers. The illicit city is an area which is alluded to here as a complement to urban design and engineering rather than a dedicated study in itself.

Benkel's 2010 urban sociological study of Frankfurt's Bahnhofsviertel (*Das Frankfurter Bahnhofsviertel*) describes the ordinary deviance of the railway station area as a kind of noir city, where prostitution, drugs, the *Milieu, Szene* are characteristic or definitive of this part



of the city, where the Frankfurter model of providing accessible substance user support in the red light area had been developed in the 1970s (Benkel 2010, p19).

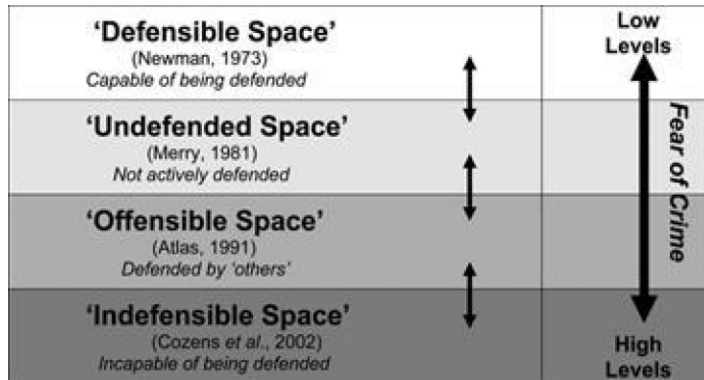


Fig. 2.5 Defensible Space (Cozens 2011, p.482)

A criminology argument in street and urban design suggests that it is possible to identify criminophilic or criminophobic spaces. Inner city areas around international railway stations have a very diverse mix of people, originating from far ranging places, but also with a diverse set of needs and desires when it comes to entertainment and services. The concept of noir urbanism works contextually with balancing fear and risk and perceived ambiguity about the environment of crime, rather than highlighting or obscuring actual crime.

Defensibility is related as much to the social aspect of dwelling and comfort in place quality as it is in physical space.

#### *Noir and the lighting of streets*

Street lighting has a parallel significance to sound in its evolution through the twentieth century. Electric lighting changed the experience of the public realm in the railway station area through the evolution of modern technology in the station area, as in the city generally, and in culturally different ways between European cities as Joachim Schlör (1994, p48) has described. The enduring presence of darkness and shadow in the modern city gave rise to the cinematic effect of *Film Noir*, translatable as an aesthetic of "grim, dystopic reality" (Prakash, ed. 2010, p2). Grim dystopia in cinema may be some form of escapism in cinema but in inner city streets in railway station areas, grim dystopia must be carefully managed, something the case studies further explored. Excessive lighting of streets at night

is not only wasteful of energy but can damage ambiance and work against the desired balance of footway and carriageway activity.

The change and evolution in modes of transport, in terms of industrialisation and mechanisation of the street, has significantly affected the environment and the diurnal balance of light and sound in the inner city streets around the stations.

The concept of noir as a theme for a literature of inner city streets provides access to a wider literature on the urban street environment via noise – unexpected or disagreeable sound – and the inner city station area soundscape. Unnatural, artificial or repulsive impulses affect the human senses like sight, smell and hearing in the inner city street, especially in an interchange area like the railway station area. It is argued in the thesis that the changing soundscape is a critical element of the modern inner city environment.

The essay ‘Sounds Like Hell’ by James Donald in *Noir Urbanisms* (Prakash, 2010) provides a way of interpreting the historically changing soundscape of the modern city, in ways which are poignant for a railway station quarter of a European city in the twentieth century. The early twentieth century resistance to the sound of modernity focussed partly on the inner city street, and the ‘onslaught’ has continued even as technology has improved the efficiency of machines, the presence of sound and noise and cacophony are characteristic of the inner city railway station quarter, but also make it distinctive, as the primary research interviews discover. Schafer also writes of the cultural associations of the urban soundscape in *The Evolving definition of Noise* (Schafer 1994, p182). Soundscape provides an insight into the workings of the inner city street, accessing the dimension of sound.

This research investigates some of the dimensions of sound and their role in defining a sense of place in inner city streets. The urban soundscape, like the landscape, has the potential for reinforcing a sense of place, making a locale distinctive. The literature on sound and noir soundscape above including Schafer (1994) and Prakash (2010) above suggests there are ways of incorporating a greater understanding of sound and noise as part of the urban context, and the method of case study research should set out to reflect this.

#### *Augoyard and Torgue on reverberation*

Design analysis and orchestration of the urban soundscape is rarely discussed in Street Design manuals. Unlike street lighting, also regarded as a highly specialised area, sound,

noise and acoustics all play a significant part in place identity and place quality for those not enclosed in vehicles or buildings. Augoyard and Torgue identify the different reverberation characteristics of changing street architectures (2005, p104-105). In modern streets, they explain "resonance continues with multiple reflections off the even surfaces of the buildings, shown in a diagram, and resulting in an increase of the sound impulse". In an older street, shown in a diagram with balconies and façade projections, "the sound, diffracted because of the different facades, loses part of its impulsion, and thus, its 'aggressiveness'".

The review so far has explored a disjuncture between engineering and place aspects of street design, and it has considered the sensory experience of moving through this urban space as part of the city. This raises the question of whether movement and place may be better reconciled, or whether they must co-exist and overlap.

## Research Questions

This research asks the question “how can streets be designed to meet diverse user requirements?” A corollary of the question in contemporary street design seems to be the question can movement and place be reconciled? The literature review identifies the disjuncture between different aspects of street design and the experience of moving through streets. This raises the question of whether movement and ‘place’ can be reconciled or can they be better understood as always coexisting in tension.

While the literature including the guidance *Manual for Streets 1* (2007) and *Manual for Streets 2* (2010) and professional guidance (Jones Boujenko Marshall 2007) has a constant leitmotif about balancing link and place or movement and place, the well intentioned call for balance is problematic. Design, more than planning or policies, can develop a shared understanding of space, but the stakeholders are very disparate. Sense of place itself is a complex attribute of a street to be addressed, and it is highly contextually specific to a street or a part of a street.

Place and place making in this review has been defined as a process requiring a connection with the concerns of local users by users and what makes the locale distinctive for them, with both positive and negative attributes of recognition of other street users, distinctiveness and transport accessibility, and its qualities of conflict and temporal change in the particular cultural visible and audible mix.

Designers and users may analyse link and place but, rather than being reconciled, it is suggested these qualities may be overlaid upon one another and superimposed – or alternatively juxtaposed against one another. The literature including *Streets and Patterns* (Marshall 2005) and *Link and Place* (Jones Boujenko and Marshall 2007) suggest that a balance may be found by recalibrating particular streets to improve the walkability of a street without the motorised commercial and public transport capacities being unacceptably compromised. The local economic benefits of such adjustment is described in some of the CABI literature, including *Better Streets* (Mayor London 2009, Mayor of London 2012) and *Paved with Gold* (CABI 2007), and more recently the case for walking was made to the UK government select committee by Living Streets (2011).

*Can place be regained where movement has dominated?*

Broadly seen, it is widely held that in the case of inner city streets in large European cities, place dominated in the street. This was before increased motorisation attracted a great deal of attention and engineering to the efficient organisation of movement in street spaces as part of area-wide and city-wide systems. Pedestrian movement space engineering and walkway design in inner city areas was not generally advanced at the same time. Over the last few decades, inner city street spaces have been recalibrated, some to the extreme that only pedestrians can access a street, and deprioritising motorised delivery access to properties with barriers and controlled times. Jan Gehl's books show many illustrations of successful public realm regeneration schemes (1987, 2000, 2004, 2005). *Rediscovering Mixed Use Streets* (Jones, Roberts and Boujenko 2007) illustrates ways in which designs can adjust some of the components of streets more subtly in mixed use streets, incorporating space for commercial deliveries, and facilities for residents like school crossings and seating. The role of the night time and the noir however is not explored in the way that this research adds it in to street design.

*Are place and movement a binary opposition?*

As noted in Jones, Boujenko and Marshall (2007) and as argued above, place and movement are not mutually exclusive, and are not in binary opposition. Place and movement seem always to be able to coexist to some level in complex inner city streets, and are often interwoven as functions of urban spaces. But it is uncertain what the implications have been for treating these two factors as binary qualities of an inner city street, especially in relation to the case studies here. The role of a third factor as an agent in thinking about street design – the noir – helps to prise apart the binary concept of streets as being 'part place, part movement', and develop other facets which are variable, qualitative and invisible or unnoticeable. How this third factor of the noir fits, doesn't fit, or unsettles the street, or adds unpredictability, is to be explored in the case study research. Are place and movement useful conceptual tools, and is the noir a useful conceptual tools for understanding inner city streets in station areas? That is what this research will set out to discover.

## **Conclusion**, engineering, designing, desiring

This literature review chapter has set out the selected literature as background for the primary research, which is documented in the case study chapters on Frankfurt and London-King's Cross. Firstly, it has showed the problem of balancing movement (or link) with place, and the frequent inflexibility of the link function. This problem is well documented, yet these two qualities of streets are not a binary opposition. Rather, they are complementary in the way suggested in some of the street design literature. It is ostensibly possible to balance movement / link with place qualities, but also these things overlap and coincide with different degrees of intensity. Link function for movement is insufficiently flexible, and inadequately applied to or even analysed in regard to the footway which is an integral part of the movement space.

Secondly there has been a problem identified with the definition of terms. The terms themselves are not unproblematic, being dissimilar between languages and specific places in the case studies. Thirdly, the chapter has set out a history of the literature, from Roman times, through the nineteenth and twentieth centuries, to a turning point just before the turn of the 21st century where priorities are being re-evaluated. Finally in this review, the noir street was presented as a third, interfering or cross-examining set of concerns in the inner city street, as it is also found in the literature. "*Bahnhofsviertelnacht*" – railway station quarter at night. The noir is a concern beyond movement and place, a concern for the dark side, the transgressive and illicit. The street as a public realm has a role in accommodating the unsettling nature of the night time and the 'strange attractions' of the inner city as part of its *noir* urban nature.

The three areas – engineering, urban design and noir – were identified in the literature to help investigate the inner city street and to better understand how to improve street design. The first two are very broad and emphasise the normative city street which is daytime, usually not in a complex international transport exchange, and notionally 'tame' in the sense of minimising the sense of the illicit or of underlying conflicts. Adding to the literature in this identified gap, beginning with this literature review, will provide new knowledge in this field, in particular identifying the oft-unnoticed aspects of the noir city in

their influence on the street, and the influence of sound as a significant sensory contributor in street design.

The next part of the thesis deals with methods for researching street design, including the primary research interviews. It is to methods and the methodology that we now turn.

# methodology 3

walking listening occupying

Occupying Streets:

Street Design in Station Areas in London and Frankfurt



## **Introduction**

Desk based and fieldwork methods were selected for contextual research and primary action research respectively, to investigate how a better understanding of the inner city street would improve street design. Street design guidance is often allied with formal highway engineering as well as urban design analysis methods, although this thesis argues the emphasis is rather biased toward engineering rather than architecture, ambience and social context. This research set out to widen the possibility of stakeholder engagement by conducting semi-structured interviews in two case study streets in station areas, defining and delimiting two streets which contain the investigation with theoretically justified reasons for these choices.

This chapter will first discuss the questions and aims of the research, the methodological framework used in the research, then consider the handful of methods used. We consider the selection of the two case studies at the end of this chapter, before turning to those two case studies in the chapters to follow.

## **Weltanschauung**

Developing a street design research methodology for inner-city railway station areas has been the lived bodily experience of an embedded, situated researcher. It has been an intensive, immersive and highly personalised experience, drawing on lived experience and theoretical perspectives which have developed in the researcher's professional and personal life. The aim was to venture as far as possible from the studio and the laboratory and into the street.

The ways in which the research methods developed were part of a personal, as well as a professional journey, constructed what will be described here as an interpretive, constructivist methodology for researching street design, with the intention of emancipatory effects. These are explained as part of this researcher's personal world view or *weltanschauung*. This research set out to understand street design from the perspective of the user of streets, by constructing a relation with a diverse range of users. A grounded approach was developed to open the research to investigate the world of this diverse range of users of the inner city street. A situated research perspective was developed for

identifying the subjectivity in the interviews, as the basis for the approach which is discussed here.

Schwandt (1994) describes interpretivism and constructivism as sensitising concepts' that steer researchers towards a particular outlook:

Proponents of these persuasions share a goal; of seeking to understanding the complex world of lived experience from the point of view of those who live it. This goal is variously described as an abiding concern for the life world, for the point of view, for understanding meaning, for grasping the actor's definition of a situation, for *Verstehen* (Schwandt 1994 p. 118).

*Verstehen* could be rendered as "standing in", following and accompanying something or someone, rather than "understanding" nor passively accepting a subject of research. It is fundamentally more participative. *Stehen* is standing. The German prefix *Ver-* means rendered or taken. *Verstehen*, it may be said, involves engaged constructive learning rather than acceptance of difference. In *Verstehen*, the world of lived reality and situation-specific meanings that constitute the general object of investigation is thought to be constructed by social actors (Schwandt 1994 p. 118).

Many of the ideas in these approaches of interpretivism and constructivism stem from the German intellectual tradition of hermeneutics popularized by Schleiermacher in the 18<sup>th</sup> century, and the *Verstehen* tradition in sociology, from phenomenology, and from critiques of positivism in the social sciences.

Interpretivists reject notions of theory-neutral observation, and tend to disagree with the idea of universal laws, as in science. Theory in this paradigm takes on a different perspective: knowledge consists of those constructions about which there is a relative consensus (or at least some movement towards consensus) among those competent (and in the case of more arcane material, trusted) to interpret the substance of the construction. "Multiple 'knowledges' can coexist when equally competent (or trusted) interpreters disagree (Guba and Lincoln, 1994, p. 113).

The interpretivist paradigm leads to a view of theory which is theory for *verstehen*; theory that possibly does not have strong predictive power and is of limited generality and generaliseability.

### **Disciplinary Background**

The researcher situates himself in this research as a designer and architect, and concedes that a professional disciplinary perspective underlies his agenda in researching the case studies for this dissertation. As an educator, the researcher has an interest in the emancipatory possibilities of the constructivist - interpretivist methodology. The development of a methodology traces a struggle to apply the researcher's architect-educator discipline background to this work, of studying street design in two case studies. The research traces a struggle to reach beyond the disciplinary methods of architecture and of highway engineering. As a researcher, a convergence of professional interests with other life interests has led to some challenges. Life and career interests revolve around the research on livable streets, which extends to the researcher's own social situatedness. Thinking around the sociology of the everyday (Scott 2009), has helped to locate the researcher's developed professional interests in 'rituals and routines', 'social order', and 'challenging the taken for granted', in streets as urban spaces, in urban public realms, and in analysing and understanding the human and physical architecture of certain inner city station area streets. We explore these three themes below.

The researcher's career agenda as an architect has been to develop ways of making, improving and reforming spaces, and has gradually moved towards improving uses of public urban spaces. Knowing that the design of streets is a 'wicked' planning and design problem (Rittel and Weber 1973), a concern in the design of the street space is its liveability and atmosphere, alongside than positivist measures of physical permeability, or efficiency of its traffic function to allow people and vehicles to pass through. Occupation, a direct action, is considered more important than accommodation in this research methodology context. The wickedness of the street design problem was unravelled and explored educationally in the workshop *Cities Methodologies*, which was conducted on London Case Study site in Caledonian Road London on 5 May 2011.

A universal accessibility perspective, which is also described as the disability barrier perspective, was particularly poignant for this research in the development of the sound-based interview method. In my work in international development I developed a perspective of "mainstreaming disability"; working towards making barriers to diverse people a mainstream educational and civic issue rather than a marginal one. Universal accessibility for streets seems a reasonable aim for the public realm in streets in railway station areas in Western Europe. Visual, tactile, auditory and olfactory characters of the city were highlighted by the disability perspective. The soundscape of the streets was brought into relief through pilot investigations I undertook with a blind colleague and friend, investigating railways and transport spaces, and also urban spaces, including a Croydon town centre pilot (Cowan, 2011). I came to understand not only stations but the wider urban soundscape more intimately. Strangely, an interview in which the recorder malfunctioned was also one which provided a surprising and interesting perspective on one of the case study field research sites, referring to the weather and the atmosphere of the area in the evening, partly reflected in the acoustics of the urban environment.

The interactive link between researcher and participants developed not only from parallel relationships with some of the interview subjects in their everyday or secondary roles, but this also occurred in some unexpected ways. One interviewee, who is a union organiser for sex workers, has remained in contact with the researcher professionally in regard to political campaigning, and a church minister has remained in personal contact, making an additional report of a violent incident in the case study area. The value-based realities of the research participants in such cases were confrontationally explicit, and in some cases contradicted the researcher's personal and/or professional value systems as a researcher.

### **Research Questions, Research Aims and Methods**

A general research question about street design was developed, with two strands. The central question was "how can streets be designed to meet diverse user requirements?" and a sub-question was to investigate "how do we understand the diversity of functions that streets facilitate?"

The research question overall set out to investigate designing streets, through the discipline of street design, and beyond, by directly engaging with users of the street. The research

compared the professional practice at the agenda setting stages and wider engagement over a three years in both London and Frankfurt. Street design is an aspect of urban design practice which can apply to new and existing parts of cities, and is relevant to urban regeneration as physical construction. Integral to the research question throughout the thesis is the question of shared understanding about streets as public realms in the city. The research sought to broaden the reach of street design expertise by widening and diversifying engagement with stakeholders, considering seasons, night and day, and movement and place in ways connected with users.

Two complementary aspects of street design referred to above are, on one hand, understanding an extant complex environment at a point in time, and on the other, intervening in a complex environment for the future. Street design, like urban design, can be regarded as a wicked design problem. The problem of street design is not soluble, but is comprised of interrelated and nested constantly shifting problems, with many variables which may change independently of one another. The intention of design intervening laterally, rather than taking a purely vertical ‘engineering’ approach to the design problem - is that human occupancy may be enhanced, possibly beyond safety, beyond the measurable. In this regard, human occupations of streets are distinguished from machine occupations by mobile or static objects; from vehicles to street furniture to building frontages. To this end, it was the unencumbered unenclosed and non-motorised users that were of primary interest in the research.

Based on the methodological approach of constructivism and interpretivism as described above, and tailored to the two case studies to be compared, a set of research methods was developed from a wide range of possibility and is summarised here in four points:

1. case study comparison through participant observation
2. semi-structured interviews with professionals, and semi-structured interviews with street users in the field and analysis of dialogues
3. desk-based research of policy and publications, field- and desk-based drawn
4. spatial analysis including 3D modelling

The methodology introduced in this chapter explains the constructivist – interpretative approach and a model of interviewing which follows principles from ethnographer Roland

Girtler's Ero-Epic dialogues technique (Girtler 2004). Girtler's method of interview – which is not so much an interview as a two-way dialogue – is used here in relation to participant observation research methodology. For the purposes of participant observation in both the 'home' case study location and the 'abroad' case study location, networks for participant observation had to be found. In the case of King's Cross, the researcher had already been involved in the Living Streets local group, and through this group, in the formative stages of a Neighbourhood Forum interest group. Girtler's methods of participant observation field work research, which have been used in work with marginalised groups and in inner city areas, was drawn upon (Girtler 2004, Spetzmann 2005).

Interviews emerged as the most important research method, combining the participant observation approach with a live field-work based way of collecting information about the street occupations, the occupants and their interests and motivations, by experiencing the street with them.

### **The research motivation**

After moving to live in central London, the writer became increasingly interested in understanding the inner city street community experienced in Marchmont Street. As an architect and designer, and like his partner and the neighbours he came to know in the building and street, he sought to foster the social ambiance of conviviality and diversity he experienced there. He began to investigate and reflect upon this inner city street community. Travelling occasionally to other parts of Europe, including Germany and his former temporary home in Austria, he developed a personal understanding of the similarities and differences between places in mainland Europe and London. Getting to know his Marchmont Street neighbours over time, the researcher shared the experience of the 2005 bombings in Russell Square underground station and the bus explosion in Tavistock Square. These two sites framed Marchmont Street at both ends, and in the aftermath, street facades in the area were forensically shrouded in white sheets. The neighbourhood group, *Marchmont Street Association* continued discussing physical changes in the area like street plantings and the refurbishment of the Brunswick Centre. An emergent proposal for a street party and festival, to occupy the length of Marchmont Street – on the doorstep – would revive an old local tradition. The prospect of the author's involvement in preparations was instantly appealing.

Collaborating with neighbours as a volunteer in the planning, management and performance of this street party evolved in 2006 as a pilot method of participative and emancipatory street design, with personal and professional significance. The spectacle and process of preparing the event, framing diversity and collaboration, was transformative in the inner city Marchmont Street community, which had a year earlier been deeply shaken by the terrorist bombings above and below ground adjacent to the site.



Figure 3.1. Marchmont Street Party (collage by various c.2006)

Although the party was a temporal phenomenon over one day, the event also had durable invisible effects. The *Marchmont Street Party* had effectively reconfigured and redesigned an inner London street in peoples' imaginations, reviving the tradition of street closure for an annual summer street party. A year of advance meetings between diverse stakeholders, soliciting interest, applications for permission, road closure, stall letting, entertainment booking and other preparations, all culminated in a festive party day in late summer 2006, illustrated in the photographic collage, Figure 3.5. This was localism in the form of collaboration high on Arnstein's ladder (1969) rather than the facile obligatory community consultation which as experienced as delivered by some authorities.

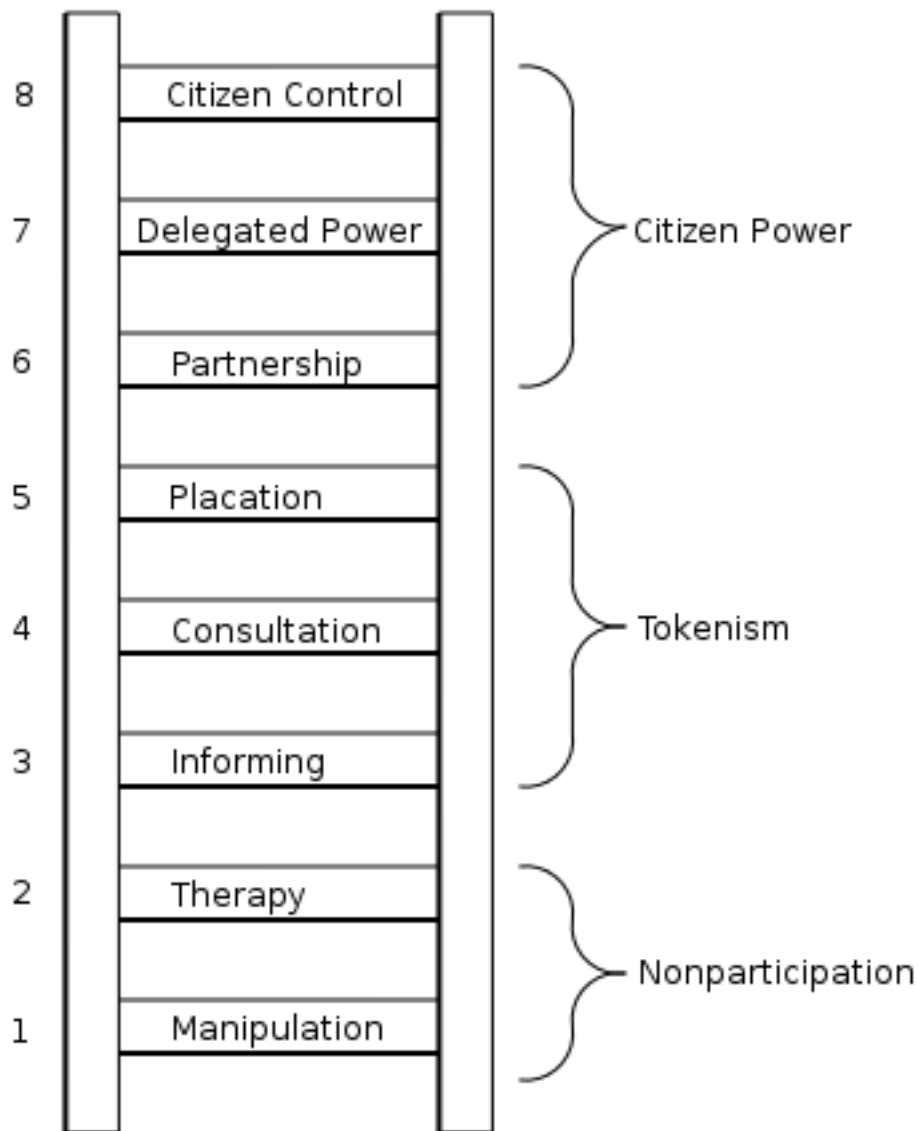


Fig 3.2. Arnstein's ladder of participation (Arnstein 1969)

Participants in the street party, who had hitherto been mere acquaintances, operating and engaging in Marchmont Street at a necessary level (Gehl 1987); neighbours, shopkeepers, and activists, also became good friends in the years following the event, engaging in the street at optional and social levels (Gehl 1987). The spirit of the event remains in the researcher's mind's image of the physical street space. The form of conviviality produced in the street over this season and on the culminating weekend set an example of the conviviality that an inner-city street community might offer. Ongoing community musical



parade group involvement, and voluntary work chairing a local "Living Streets" volunteer group, and a role in helping establish a neighbourhood forum, all relate to the researcher's personal search for street conviviality. The research was situated in order to relate it to the researcher's background vis-a-vis the study of street design in station areas, and to the selection of the case studies.

As Mike Biddulph writes of urban design, streets designs and the ways in which they provide for occupation and are actually occupied have political implications. "[U]rban design is political to the extent that we must try and understand how our decisions might favour some (people, species or environments) over others" (Biddulph 2012, p 2). Street design research is holistic, and this makes the qualitative research methods appropriate, however the outcome may have a fragmented nature which is difficult to pull together and integrate. Biddulph (2012 p 2) writes "...designers must overcome the fragmented nature of knowledge created in discrete disciplinary fields" (citing also Buchanan 1992, p 6).

### **A comparative case studies approach**

A comparative pair of case study streets were selected for this research, and the study of these was then developed with a mixed methods approach to urban analysis. Initially, fourteen possible methods were outlined and in the course of the research these were consolidated into nine main elements. Of these, several are conventional urban analysis and street design analysis methods, and a few were experimental, relative to the extant methods and also to the researcher's own practice background.

The case study selection criteria were: the street should be an inner city mixed-use street, and forms a non-central but integral component part a (sub-) town centre, running alongside an international railway station at one remove. The comparison case study site would be in Frankfurt, Germany, where I had been living and working as a guest worker project manager and architect at the time of commencing the study. The London site would be an equivalent close to the International railway station complex where I then lived and where I still live.

As explained, the two chosen sites, inner city streets in station areas, were each relevant to professional and personal life. Having worked in German-speaking Europe, and in

collaboration with German-speaking Europeans in the decade since 2003, and also working in German-speaking Austria from 1989 to 1992, I felt I was in a position to compare my experience of ways of working and ways of life on the continent with my experience of ways of working and ways of life in Britain. The latter was more comparable to my professional experience in Australia, where I grew up. My comparison between Anglophone Britain and German-speaking Europe was extended to the hypothesis that it would be useful to compare professional and lay cultures related to the respective streets in two respective European cities, and to compare the professional and lay cultural approaches to urban landscapes. *Urban Design* and *Street Design* would be compared with *Staedtebau* (City making) and *Strassengestaltung* (Street Design) as cultural practices, and as tangible environmental phenomena of the city.

The researcher's background as an international development volunteer was part of his positioning as a traveller and an experienced member of the international cultural exchange through the social network and community "coushsurfing.org". Through this network, despite having previously lived and worked in Frankfurt as an architect, living as a more conventional tenant or lodger, the researcher made contact with like-minded couchsurfing hosts with a view to their hosting his accommodation and to collaborative participation in the interviews. This led for example to the contact with (Herr) FG, a safety inspector working in Niddastrasse, and later interview. As this was an unconventional means of recruiting interviewees, the benefits and detractions are briefly outlined here. The CS (Couchsurfing) network gives access to people who are interested and engaged with hosting visitors and often interested in showing visitors their own city. For the researcher it provided a link to people whom one may not otherwise know was available to host. The detractions or disadvantages to this method are in the bias that might result from interviewing germane-thinking peers, or otherwise like-minded contacts.

### **Frankfurt Interviews**

Planning of the interviews began in 2009 in Frankfurt with a range of contacts. Some contacts were bureaucrats, officials, or specialist professionals, others were approached in the street, by prior agreement online, only if it was safe to do so, and in accordance with the University's and the researcher's ethical framework. The church minister was approached

by telephone and email, and provided indirect access to the most hard-to-reach stakeholders, like an ‘unsaved’ homeless substance misuser.

Hard to reach street users in this sample were represented in interviews F4, F5, F10, F15, F18 and F21, fewer than half the respondents in the Frankfurt Case Study. Interview 4 was with a representative of national advocacy organisation for the blind without any direct responsibility on the site, accessed from blind research colleagues’ contacts, while interview F5 was with a missionary on site in the field, but difficult to access both physically and socially. This interview provided gatekeeper access however, to more inaccessible views from substance misusers. Interview F10 was arranged through the international hosting organisation Couchsurfing.org and provided access to views from a safety inspector who would have been difficult to contact through any official non-social channels. Interview F15 was arranged with an onsite office resident by door knocking but in the company of a gatekeeper local person, enabling contact which would not likely have been possible as an individual foreign researcher on the street at night on a weekend. A lady who was mother of one of the café staff was contacted by agreement in the semi-public environment of the café and provided what would usually be a difficult to access viewpoint in Interview F18. Finally the spokesperson for the prostitutes’ advocacy union was contacted by telephone and provided hard to access information about the case study street in Interview F21.

Professional or officials with an interest in local street users in this sample for Frankfurt, and for which the research interview could be considered as ‘part of their job’ were participants in interviews F1, F2, F3, F6, F7, F8, F9, F12, F13, F14, F16, F17, F19 and F20 and in the majority, although half of these, seven were contacted because they were directly responsible on site at reception or had some explicit interest in the site. These seven on site were F6, F8, F12, F13, F14, F16 and F20. The other seven were officials and in two cases were longitudinally organised, each with two interviews spaced a year apart. These were the Frankfurt planning advice service (interviews F1 and F7) and the *Stadtviertelbuero*, Neighbourhood planning office for the Station Quarter (interviews F3 and F9). The remaining officials and professionals were the Head of the Planning Department (interview F2), the City Planner responsible for the station area (F17) and the Dean of Urban Design and Architecture (interview F19). The seven on-site were an outspoken Café owner and local organiser (interview F6), two local architects who frequent the area, contacted through the

researcher's work in Frankfurt (Interview F8), and receptionists at three local hotels on the street. The hotels are a Chinese Conference Hotel for visitors to the Frankfurt Fair (interview F13), a mid-range traveller's hotel, the Columbus (interview F12), and Levi's 25hours, a youth, fashion and music orientated hotel with a music studio (interview F14). Interview F16 is with a late-night basement kiosk operator nearer the station, and interview F20 is with a waiter at a Chinese restaurant.

Tables of the interviewees provide an overview of the range of people interviewed;

### Frankfurt am Main Interviews

Interview F1. Hr ASM. (Advisor, Open Surgery, Planning Department, <i>Baurat, Sprechstunde Stadtplanungsamt Frankfurt</i> ) on 5 July 2010 (German language)
Interview F2. Frau UB (Head, Regeneration and Housing, Planning Department, <i>Abteilungsleitung 61.S1 - Stadterneuerung und Wohnungsbau, Stadtplanungsamt Frankfurt</i> ) on 4 August 2010 (German language)
Interview F3. Hr HPK <i>Stadtteilbüro Bahnhofsviertel</i> (Neighbourhood Office for Frankfurt Railway Station Quarter), 8 December 2010 (German language)
Interview F4. Hr PW, <i>Architekt, Barrierefreies Bauen, ABSV Allgemeiner Blinden- und Sehbehindertenverein Berlin</i> (Architect, Accessibility, General (Umbrella) Association for the Blind and Visually Impaired in Germany (Berlin Desk), 1 June 2011 (German language)
Interview F5. Hr KL ( <i>Loewe v Judah Church minister, Niddastrasse 49</i> ) Thursday, 12 January, 2012 (English language)
Interview F6. Hr GK (Cafe Luna Park Niddastrasse) Bar Owner, Thursday, 12 January, 2012 (German language)
Interview F7. Hr ASM (Advisor, Open Surgery, Planning Department, <i>Baurat, Sprechstunde Stadtplanungsamt Frankfurt</i> ) on Friday, 13 January 2012 at 10.00 (German language)
Interview F8. Hr R and Hr G Two architects who work in Schleusenstrasse and have lunch in Niddastrasse (nos 120113-005, 120113-006, 120113-007, 120113-008 on Friday, 13 January 2012 at 12.30 – 13.45 (German language)
Interview F9. Hr HPK desk-based interview at the <i>Stadtteilbuero Moselstrasse 6a</i> with its manager, 120113-009, <i>Stadtteilbuero</i> , 120113-010, <i>Wiesenhuettenplatz</i> , 120113-011, Niddastrasse, 120113-012, <i>Europaviertel</i> 120113-013, Future Wellness. 120113-014, Planning permissions process on Friday, 13 January 2012 at 14.00 – 15.00 (English language)
Interview F10. Local worker (FG) walking interview in Niddastrasse, 120113-000 (1), Ambient, 120113-001 (1), Duesseldorferstrasse, Messe 120113-002 (2) Bristol Hotel on Friday, 13 January 2012 at 17.00 – 18.00 (English language)
Interview / Recording F11. Ambient: 120114-000 / 120114-001 / 120114-002
Interview F12. Hr Receptionist, Hotel Columbus, Ottostrasse 13., <i>Lebhaft / Multikulturell</i> (German language)
Interview F13. Fr Reception, Chinese Hotel, Niddastrasse 39-41., 120114-005 / 120114-006 75 zimmer / <i>Stell muell vorne auf der strasse, Paar fragt um zimmer</i> on Saturday, 14 January 2012 at 21.30 (German Language with Chinese accent)
Interview F14. Fr. K Receptionist, 25h Hotel, Niddastrasse 58 zimmer <i>arr mit fahrrad</i> cycles to work 120115-000, <i>check-in Fruehstuck</i> / 120115-002, <i>parken vor Tuer, Parkhaus Moselstrasse 2EU/Std Gibson raum im Keller</i> (German) on Sunday, 15 January 2012 at 18.45 (German language)
Interview F15. Graphic Design and Communications Agency, Niddastrasse 63 (Fr JW 30s) 120115-004 <i>Franken, Pelzhaendler, Luxus / Junkie</i> / 120115-005 <i>Bauluecke</i> / 120115-006 Appendix (German) on Sunday, 15 January 2012 at 20.30 (German language)

<p>Interview F16. Kiosk, Convenience shop-window Niddastrasse 7?. (Simon, migrant of non-German speaking background) 120115-007 Like the street, Helping my brother on Sunday, 15 January 2012 at 21.30 (English language)</p>
<p>Interview F17. KK <i>Stadtplaner Bahnhofsviertel</i> (Planner, Station Quarter) desk 120116-000 / 120116-001 / 120116-002 / 120116-003 on Monday, 16 January 2012 at 14.00 (German language)</p>
<p>Interview F18. Fr D at Café Luna Park Niddastrasse 120116-004, 120116-005 Gefeiert, gegrillt on Monday, 16 January 2012 at 17.30 (German language)</p>
<p>Interview F19. M Prof PMP Dean of Urban Design and Architecture at the University of Applied Sciences. 120117-000, 120117-001, 120117-002, 120117-003 on Tuesday, 17 January 2012 at 10.30 120117-004 on Tuesday, 17 January 2012 at 10.30 (German language)</p>
<p>Interview F20. Hr Waiter, Mian Restaurant Niddastrasse 52. <i>Zu wenig Gruen, strassen 'ziemlich Top'</i> (not enough green, but 'tops') on Saturday, 14 January 2012 at 21.00 (German language)</p>
<p>Interview F21. Frau JH at Dona Carmen 120229 on Wednesday 29 Feb 2012 (German language)</p>

Fig. 3.3 Frankfurt Interviewees

### London Interviews

The London interviews were developed contemporaneously and based in parallel on parity with the Frankfurt interviews. Inevitably, the participant observation was different in a city and neighbourhood where the researcher had a close interest developed over several years full time. Although no exact parallel of the open surgery was found at the local authority, various forms of engagement with the local authorities and interest groups had been established, for example the King's Cross Safer Neighbourhoods Panel Committee and the Walking Audits group in the King's Cross partnership between police and an NGO outreach team. The latter group walking audits (by the Safer Neighbourhoods Team / Safer Neighbourhoods Panel – Safer Streets Team) provided monthly walking audits of "street activity" on a walking circuit close to the case study site, but not including Caledonian Road, which is on the Islington borough side beyond the Camden borough boundary. The monthly walking audit sampled street activity, and its associated street population, which are defined in terms of the activities, 'rough sleeping, begging, street drinking, public drug use

and drug dealing and street prostitution’. These activities were monitored and recorded for referral by officers and social workers to other outreach workers, and in some cases for environmental interventions such as CCTV placement or property manager advice of anti-social behaviour on premises. The latter method was used by the Safer Neighbourhoods officers to collect evidence and prove anti-social behaviour occurring in a car park in order for the local authority to require the owners to control access.

During the research period between 2009 and 2012, road safety and street liveability were challenged by cycle activists following a fatal street accident. Contact was made with cycle activist interviewees on site. Cycle activists as part of the Camden Cyclists group were also involved in consultation about the changes to King’s Cross Gyratory, beginning with changes to the junction of Gray’s Inn, Pentonville and Euston Roads and York Way (TfL 2015).

Hard to reach interviewees in this London sample represent eleven of the twenty, numbers L3, L4, L6, L9, L11, L14, L15, L16, L18, L19, and L20. The first four of these include a blind person who is not local (interview L3), a retired activist (interview L4), a young arts student (interview L6) and a reluctant activist who had recently relocated away from the area (interview L9). There were tourists recruited through participant observation as a local volunteer tour guide through the website London Greeter (interview L11), and three street users who were recruited for interview through participant observation in a campaign action for the area (interview L14, interview L15, and interview L16). Three other hard to reach users were Continental visitors to the area temporarily resident in London (Interview L18), another activist followed up after contact through the campaign action (interview L19), and a potential member of the local Neighbourhood Forum contacted through participant observation (interview L20).

Professionals interviewed as street stakeholders in this sample for London, for which the interview about street design could be construed as part of their job, were interviews 1, 2, 5, 7, 8, 10, 12, and shopkeeper interview L13. Interview 17 was with an experienced but non-local street activist and campaigner. Interviews L1 and L2 were arranged through the university and Living Streets contacts directly. Interviews L5, L7 and L8 were arranged respectively through the university, the Railway Station and the researcher’s former workplace at an architects firm. Interviews L10 and L12 represented two urban design-

related institutions or agencies, and interview L13 was with the shopkeeper at a local shop which was a landmark in the street for fifty years, from 1965 until May 2015.

### London Interviews

Interview L1. Mr RH (Public Realm Information and Advisory Service UK) at Urban Design Group, Cowcross Street, on 21 April 2010 (All London interviews in English language)
Interview L2. Ms CR (Civil Engineer, Community Activist, Local politician and council member, Living Streets local group chair, Islington, UK) on 12 January 2011
Interview L3. Ms JK (Blind Person / Street User, Perth) by telephone 16 March 2010
Interview L4. Mr NH (Activist, Camden) on 16 February 2011
Interview L5. Mr TF (King’s Cross Network Rail Construction Site) on construction site, 24 February 2011
Interview L6. Mr SC (Art Student, Central St. Martins) Location interview, Caledonian Road, Friday 6 May, 2011 various others incl. R S-P
Interview L7. Ms SS (an urban design researcher at University of Westminster) in Caledonian Road, 10 Nov, 2011
Interview L8. Mr SC (Frankfurt resident and architecture part 2 graduate of FH Frankfurt), in Marylebone High Street on 11 November 2011
Interview L9. Ms L, Local Wharfedale Rd Resident and cyclist LP on Caledonian Road 27 December 2011, 11.12.27
Interview L10. Ms CN, CABA Spaceshaper (desk interview by telephone 5 January 2012)
Interview L11. Ms C and Mr G, visiting Belgian Tourists, non-English-speaking background on Caledonian Road 7 January 2012
Interview L12. Ms JE Imperial Coll. Geography, transport planner Transport for London 9 Jan 2012, 12.01.09
Interview L13. Mr L and Mr A at Continental Shop since 1965, on Caledonian Road 09 January 2012 (Italian accents)
Interview L14. Ms RW Local Argyle Square Resident (FoAS member) and cyclist, Blogger, ‘London Remembers’ Argyle Square Activist, Resident on York Way January 120206-000
Interview L15. Ms JD Local Cycling Campaigner (Camden Cycling Campaign) on York Way 120206-000



Interview L16. Ms BA Local Bloomsbury Resident, designer illustrator and cyclist on York Way 120206-003
Interview L17. M Prof K, cycle activist on 20 February 2012
Interview L18. Ms F and Ms MD Italian visitors, one who works in a shop, one an architect 120219-000 on 19 Feb 2012
Interview L19. Ms LEPW Advertising professional and cycle activist on 20 February 2012 120220
Interview L20. Mr JR via KXDF (tape recording failed)

Fig 3.4 London Interviewees

The questions devised for both case studies are shown below, in Figures 3.3 – in the German language and exactly the same questions in English, shown in Figure 3.4.

### The semi-structured interview questions

Frankfurt (German language)

Liveable Streets: participation in street design

#### SEMI-STRUCTURED INTERVIEW SCRIPT

1. Ziel dieser Forschung ist es, durch Benutzerbeteiligung den Strassenentwurf zu Verbessern, mittels Analyse der Erfahrungen mit den FussgaengerInnen und RadfahrerInnen
2. Warum kommen Sie hierher? Wo gehen Sie hin?
3. Was moegen Sie und was moegen Sie hier nicht?  
Gibt es etwas, was Si emir Zeigen koennen?
4. Wie beeinflusst Sie als FussgaengerIn / RadfahrerIn der motorisierter Verkehr?
5. Benutzen Sie eine Seite der Strasse eher als die Andere?
6. Kommen Ihnen manchmal Bekannter/Innen hier entgegen?
7. Kennen Sie Betriebe oder Kaufleute hier?
8. Um welche Zeit sind Sie meistens in diese Strasse unterwegs?
9. Meiden Sie zu bestimmten Zeiten dieser Gegend?
10. Was haetten Sie gerne hier verbessert?
11. Gibt es bestimmte Gruende, die eine Weiterentwicklung behindern?
12. Welche moeglichkeiten koennten Sie sich zur verbesserung dieser Strasse Vorstellen?

(Dank an S. Cvitanovic M Arch, FH Frankfurt fuer das Rechtschreibpruefen)

Fig. 3.5 Script for semi-structured interview questions – German Language

London, King's Cross (English language)

Liveable Streets: participation in street design

SEMI-STRUCTURED INTERVIEW SCRIPT

1. This research study aims to improve liveable street design, by analysing the experience of diverse street users walking or cycling here
2. What brings you to use this area? Where do you go?
3. What do you like and what do you dislike about this area?  
Is there anything you can point out?
4. How does motorised traffic affect you as a pedestrian or cyclist?
5. Do you use one side more than another?
6. Do you bump into anyone you know in this area?
7. Do you know any shops or shopkeepers in the area?
8. What time(s) do you visit the area?
9. Are there times you avoid the area?
10. What would you like improved?
11. Are there any possible barriers to improvement you can identify?
12. What opportunities can you imagine for improving this street?

Fig. 3.6 Script for semi-structured interview questions – English Language

### **Ethics**

As stipulated by the University's research ethics committee, each interviewee signed a consent form, or recorded a statement on tape; agreement was given to record the interview, with the participant having read, understood and consenting to the research interview conditions stated on the Participant Information Sheet. The latter conditions are that participation is voluntary and can be terminated at will, and that the results will be kept confidential unless expressly agreed otherwise. A contact email address of the researcher

was provided for interviewees to obtain further information or follow up and this was frequently utilised to stay in contact or enquire about the research.

The researcher, as a pedestrian, cyclist and street user in the inner city, offered the embedded perspective of a participant observer, combined with the professional perspective of an architect and a researcher using social science methods to explore and to methodologically innovate in street design research, alongside established urban design and analysis methods. The professional and the personal spheres cross over in the private and public realms in the author's development as a well-rounded researcher.

The research methodology developed for this thesis is situated in a theoretical framework described with reference to Mertens' *Tripartite framework of research paradigms* (1998 p 498, cited in Groat and Wang 2002 p 32), and which is discussed below. This section situates the researcher's professional practice background as an architect and designer in relation to the present research in two neighbourhoods, one of which is his home, the other where he formerly lived and worked, temporarily. The day to day habitus of the researcher's own sensitive body – walking, cycling and sitting in the city – is situated within this framework of paradigms described below.

### **The settings**

A range of stakeholders was identified for the research, with emphasis initially being placed on hard to reach users of the inner city street in the station area. The range of these was subsequently balanced with official and professional views; in the Frankfurt case, with six hard to reach, the majority of fourteen were officials, agencies or accessed on site. In the London case, more than half of the sample, eleven, were hard to access. As outlined above, the hard to reach users ranged widely in Frankfurt however, from a prostitution advocacy group to a missionary to a safety inspector contacted through a social network. In the London case study, although the hard to reach interviewees represented more than half, three of these were only considered hard to reach due to their visitor or traveller status while others were accessed through a long period of participant observation activity with Living Streets and the local neighbourhood forum interest group.

The 24-hour nature of the area and the diversity of users in the street suggested this range should be reflected as far as possible in the range of interviews conducted. The interest in the urban design of the public realm in the street suggested that the interviews would best be conducted in the street with those using the street in a direct and unmediated way, including walkers and cyclists, but not including those passing through the sites in forms of transport where the street did not represent a place, the same extent as those occupying the street. For those passing through on the networks such as the A5203 Caledonian Road, and not stepping out to engage with the locale, this place is an insignificant and marginal part of a journey. Therefore the interviewees were either residents, workers or those who had some business or interest in the street, and many came to the site or arranged to take time on the site at a specific time for the interview.

Further, it was considered important that agencies which play a role in facilitating street design and strategic management, such as planners, Non-government advocacy organisations and community activists would have a perspective which should be reflected in the interviews.



Fig. 3. 7. Stakeholders in the street

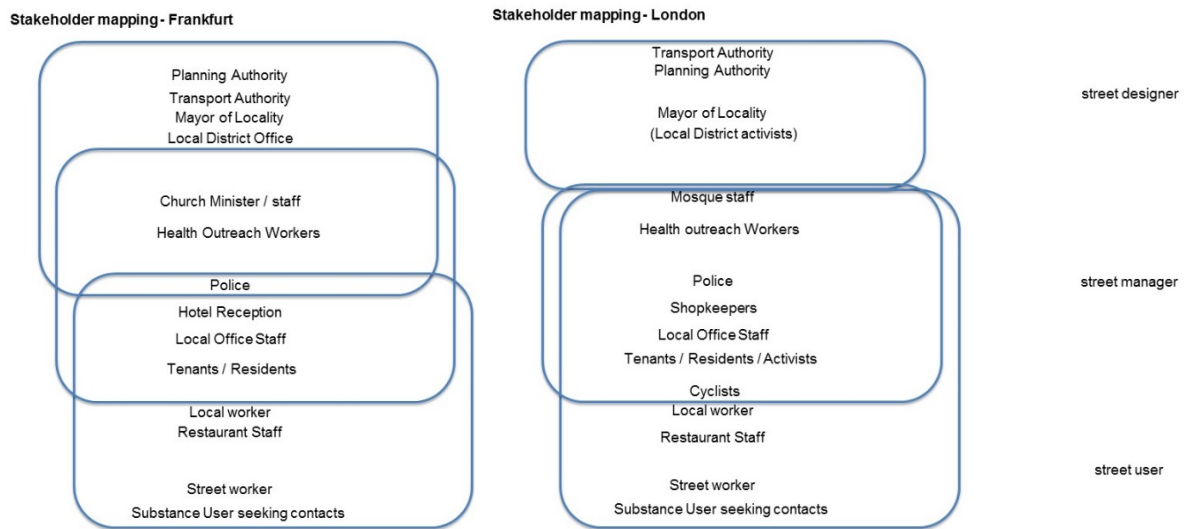


Fig. 3.8 Stakeholder Maps (presented in each respective case study chapter)

### The methodological framework

In this situated research, the researcher was a participant-observer. The initial framework of research paradigms available is reviewed here with reference to Groat and Wang’s *Tripartite Framework of Research Paradigms* (Fig. 3.2 below). The framework shows different approaches to research, associated with diverse local realities (ontologies) and diverse local knowledges, what are called epistemologies.

The tripartite framework shown below spans from positivist approaches on the left, via constructivism in the centre, to the emancipatory approaches, which reflects also the methodological direction in which the research moved. From the traditionally positivist methods of architecture, familiar from an architectural education, there was on the other hand an influence from the constructivist education approach from adult education. The researcher moved increasingly towards social science methods which are interpretative and which are intended as emancipatory. Some initial quantitative analyses were made in each case study site during the pilot phase, and subsequently the methods became increasingly qualitative. The present research is framed mostly outside the positivist and post-positivist framework, besides my investigating pedestrian and vehicle counts (5, 6 and 8 July 2010) and some work in one case study with the *Safer Neighbourhoods Team*, a Police – Community cooperative team, performing walking audits of ‘the street population’ (2011 –

2012). Constructivism became important as a way to address a wider and investigative understanding of the issues on and in the streets investigated.

Constructivist and interpretative methods were developed from the early pilots, alongside the mapping, photography and 3D modelling using SketchUp. Constructivism was applied with further investigation of the spatial analysis as the dialogues continued as a participant-observer with case study research contacts and interview subjects. For example, urban public realm agencies in each of the case studies had already planned projects or 'schemes' relevant to the case study sites. These developing schemes were taken into account with the interview questions in each case. The progress of these projects and schemes in each case brought a longitudinal aspect to the interviews and played a part in arranging follow-up interviews or linking between interviews. I consider the process to be one of collaboration rather than consultation.

Early twentieth century German sociologist Max Weber is regarded as the founder of interpretivism, influenced by philosophers Kant and Dilthey. Weber distinguished between *action* (meaningful to the person) and mere *behaviour* (instinctive and reflexive), and argued that the role of sociology was to "interpret social action – that which took into account other peoples' meanings and motivations" (Scott 2009 p 16). The tool Weber offered for doing this was *verstehen* – interpretive understanding – meaning 'stepping into the other person's shoes and trying to understand their view of the social world'. It was this interpretive understanding – *verstehen* – which lies beneath the interview method and form of analysis developed from the pilot stages into the final interviews.

Peter Winch (1958 cited in Scott 2009 p 15) applied debates about ethnocentrism in cross cultural research: "I ask you to bracket out any assumptions or value judgements you may have about your own way of life being normal natural or right". Adopting Winch's relativist approach, we can view all cultures – including our own – as equally strange. Personally, as a researcher, there was a wide scale of familiarity and strangeness found in the case studies pursued. The researcher, indigenous to neither place, experienced complex different degrees of attachment to – and belonging in – each place. The degrees of familiarity and strangeness vary spatially, geographically and temporally at different hours of night and day.

The tripartite framework of research paradigms is set out below. The horizontal scale is from positivism towards collaboration in emancipation, and the vertical factors are ontology and epistemology.

**A Tripartite Framework**

	Positivist and post-positivist	Constructivist and Interpretative	Emancipatory
Ontology (nature of reality)	One reality knowable within probability	Multiple socially-constructed realities	Multiple realities shaped by social, political, cultural economic, ethnic, gender and disability values
Epistemology (nature of knowledge)	Objectivity is important: researcher observes and manipulates in dispassionate, objective manner	Interactive link between researcher and participants; values are made explicit; created findings	Interactive link between researcher and participants; knowledge is socially and historically situated

Figure. 3.9. A Tripartite Framework of research paradigms (after Mertens in Groat and Wang, 2002, p. 32)

The early qualitative work for this research, especially the interviews, which emerged later from multiple methods, contrasted with the early quantitative surveys, pedestrian traffic counts and street furniture audits, which now seem hyper-specific and insignificant to the findings. Yet these quantitative pilots had helped set the tone for the investigation. The quantitative pilots has helped to identify the ‘pulse’ of the locations, but the researcher felt a sense of futility about being able to do justice to these empirical measurements, besides being able to influence these criteria. The quantitative pilots seemed a very insignificant part of a very complex set of systems. They proved to be valuable in the later stages as a direct means of observing a complex system to which it was later understood that extreme



amounts of desk-based computer modelling would not do justice. The direct experience was in some way an epiphany, connecting with Girtler's field work principles, through which the experience of traffic engineers the research later later connected with, would be rather too detached from design, when the professional agents are themselves unable to legitimately occupy the street in person.

The researcher saw the realities of the two case study streets as defined by multiple socially constructed realities, and by means of access to more than twenty interviews in each case study, the research findings reflect some of the diversity of these social realities. At twenty, the number of interviews began to approach a level of saturation of each of the streets' occupants and their realities and knowledges. The interviews were also conducted over time, from the pilots in 2009-2010 to the interviews in the second and final phase from 2010 to 2012. The multiple realities reflected may be considered as shaped also by social, political, cultural, economic, ethnic, gender and disability values.

The discipline of cultural geography helps to relate culture and geographical space. This research has set out to engage with place in an interpretative and qualitative way.

### **Street Design as a wicked problem**

This research relates to city streets viewed as core spaces of contemporary civilised society; every day spaces, and every night spaces. The case studies are existing inner-city streets: sites which are well-established urban places with many layers of history, and how they are managed and planned. The planning and regeneration of extant traffic-laden streets in inner city areas is highly complex, involving very diverse professional agencies and actors, and my initial hypothesis was that these agencies' views are very detached from those of actual users.

The fine-tuned planning problem, and the distance between professionals and users, can be viewed as a "*wicked*" planning problem. Wicked problems are many sided, insoluble or constantly changing. "The professional's job was once seen as solving an assortment of problems that appeared to be definable, understandable and consensual" (1973, p 156). Rittel and Webber wrote in 1959 - referring at that time to the post-war reconstruction - that the professional had once stood as clean evidence of professional prowess:

The streets have been paved, and the roads now connect all places; houses shelter virtually everyone; the dread diseases are virtually gone; clean water is piped into nearly every building; sanitary sewers carry wastes from them; schools and hospitals serve virtually every district (1973, p 156) .

We were now turning to more difficult and stubborn problems. Tests for efficiency were now challenged by a renewed preoccupation with consequences for equity. The seeming consensus was now eroded by the awareness of pluralism and value differentiation "that accompanies differentiation of publics". Now the "professionalised cognitive and occupational styles that were refined in the first half of the (twentieth) century, based in Newtonian mechanistic physics, are not readily adapted to contemporary conceptions of interacting open systems and to contemporary concerns with equity." (Rittel and Weber 1973, p 156)

The present study of streets set out to address not merely matters of traffic management and architecture, but to investigate the sociology of streets – by making sense of everyday life in the streets, from the viewpoints of those diverse publics who occupy them. *Making Sense of Everyday Life*, in the sense of Scott's book, is an introduction to a broad approach to sociology (Scott 2009). Urban streets are everyday life spaces, with their use-identities containing movement and place, in ways unlike squares, corners or parks. They are places where everyday life is played out in the city. As an architect researching the everyday urban space of the street – specifically streets in railway station areas – by talking to people and setting out to understand the cultural geography of these urban places, I adopted and used social science methods in the realm of urban research, shifting my personal and professional outlook.

### **Case Study Methods and Mixed Methods**

1. participant observation through case study
2. semi-structured interviews with professionals, and semi-structured interviews with street users in the field and analysis of dialogues with use of NVivo qualitative research software

3. desk-based research of policy and publications including traditional field- and desk-based drawn urban design analysis
4. spatial analysis including 3D modelling using sketch up

The case study form of research is used extensively in traditional disciplines, psychology, sociology, political science, anthropology and in urban design. It is used as a method of comparison for this study of cities and in particular for streets, because it allows an in-depth cross-disciplinary study of a phenomenon which is co-produced by many diverse actors, and allows physical parameters to be drawn to contain and delimit the study. Robert K Yin's *Case Study Research Design and Methods* (2003) is a key text in this area. The Case Study method is introduced by Yin as one of several methods for social science research. Case Studies showcased as examples in Yin's 'Case Study Research' (2003) include sociologist William F Whyte's project, *Street Corner Society* 1943 which used overt participant observation in a descriptive case study (Yin, 2003, p. 4) and Jane Jacobs' study of her New York City experiences in *The Death and Life of Great American Cities* – with its generalisability for the urban planning professions (Yin, 2003, p. 38).

Other illustrative cases highlighted by Yin are comparative case studies, like Chaskin's 2001 contrasting strategies for capacity building at neighbourhood level (Yin, 2003, p. 54). These are the kinds of features to be applied in this pan-European comparative study, comparing Niddastrasse, Bahnhofsviertel Frankfurt am Main with Caledonian Road, Kings Cross. Other case studies are methodologically relevant to this study because they involve two kinds of participant-observation study. One is Herbert Gans' work, using six approaches to studying Italian-American urban villagers in 1962, and the other is a 1973 study of the *Dance of Legislation* in an everyday setting.

Gans used neighbourhood facilities, attended meetings, informally visited with neighbours and friends, conducted interviews both formally and informally, used informants and directly observed (Yin 2003, p 95). The approaches were based on Gans being an actual resident of the study area, which seems very similar to my situation, as I have been living in Kings Cross since 2008. The day-to-day participant observation applied to a much more limited extent, in the case of my excursions living and working in Frankfurt am Main to work

as an architect guest worker in July – September 2009; and for research purposes in July 2010 and January 2012.

Critically reviewing the researcher's own 'architectural' approach to both physical and social aspects of the street through the architectural research methodology literature (Groat and Wang 2002) and urbanism research literature (Jones Roberts and Morris 2007:15-26, Joroff and Morse 2002, Schwalbach 2009), the methods were selected. They were to be applied – reflecting a spectrum of quantitative and qualitative methods. These were developed and consolidated in a mixed approach, but the recordings of interviews in final analysis formed the main core of the approach, in that these consolidated everything that was learned and encompassed what others believed and felt about the street in each case.

The case study method was considered very early in the research. This method was considered inherently suitable for generating analysis and proposals for practical intervention in the context of architecture and urban design research fieldwork. In the literature of street design, case studies of built examples are the core of the evidence and illustrative material, from *Shared Space* (Gerlach, Ortlepp, Voss 2009) and (Bechtler, Hänel 2010) to *Rediscovering Mixed Use Streets* (Jones, Roberts and Morris 2007). Indeed, even the guidance books in the grey literature use case examples which put espoused principles into practical context. For example, *Der Muller Staedtebau* (1979) provides detailed reference data and complex analysis methods such as inner-city parking space calculations (ibid, p 351) and *RAST-Q – Streets cross-sections (Richtlinien für die Anlage von Stadtstraßen- Querschnitte, Rules for the Layout of Urban Streets)*, but through case study examples, practical aspects of the street design configurations are illustrated, such as the Bus Station to Underground Rail interchange in Hamburg (ibid, p 367).

### ***Similarities between street design and urban design***

The nature of street design research methodology may be compared with that of urban design research methodology, as street design is regarded as a sub-set of urban design. Urban design, as discussed above, is also a holistic problem or set of problems, which cannot be definitively resolved – there is no solution to a social problem like livable streets, nor even an "optimal solution unless severe qualifications are first imposed" (Rittel and Webber 1973, p155).

Street design is defined here as an aspect of the public realm involving the architecture of the street, made up of the relationship between people, buildings, footways carriageways and all the static and moving things occupying or installed in the space.

Liveability is defined in Chapter 2 as the quality which makes a place somewhere, where people want to be, to live, work and play (Living Streets 2015). In high streets or significant public streets in railway station areas there is an important element of all-hours culture in which living, working and playing includes sleeping, eating, shopping and recreating or entertaining. The research considers these aspects of everyday - and every-night - life in streets. Social science methods including case study research and interviews are employed to study street design, but "while thinking about urban design might usefully be informed by social science methods, the conclusions from such work must be limited to the applied field. Thinking for urban design must embrace the wicked nature of urban design problems, and the interpretative and political nature of how we come to judge built for solutions" (Biddulph 2012, p 1).

Comparison is used in this thesis between the two case study examples of Frankfurt and London. Reference is made to Nelson (2001) on comparing London and Paris, and to Bertolini and Spit's multiple comparison in *Cities on Rails* (1998). From a range of architectural research methods, cross disciplinary open interview methods applied in the field, and case studies, a broad picture of available methods was gained in phases one and two of the research in order to devise the integrated (*interpretative–constructivist–emancipatory*) methodology.

Having collected a large amount of rich data in the form of the interview recordings and transcript 'texts', a qualitative research analysis tool was used to identify themes and to extract findings from the interview research. The sounds were considered in relation to the London Sound Survey which maps day and night sounds across London (London Sound Survey 2013).

### **Other architectural research methods**

Drawing on Groat and Wang's work *Architectural Research Methods* (2002), some of the architectural-discipline research methods were considered for the way they might build on

past experience in architecture practice and teaching, while challenging and extending them. These may be compared to the methods used in the 2004-5 study 'Rediscovering Mixed Use Streets' (Jones, Roberts and Morris, 2007) in which, for example, seven methods were used; Collating existing data, Urban design analysis, Community street audits, Street video analysis, and Stakeholder surveys (2007, pp 15-26).

We turn now to the toolkit prepared for this research, an evolving set of methods combining those from the decades of background working in architecture and those used in architectural education, with some which would be tested or applied experimentally through the years of research inquiry focussed on London and Frankfurt.

Spatial Analyses were done from aerial photography, orthographic aerial photography (google map, aerial photography view) and Bird's Eye Views (Bing maps isographic views). Google maps are used regularly for both sites and the tool has changed over the period of the research since 2009 allowing new functions on the desktop and on the handheld device versions.

These tools have become ubiquitous in the architects practice to the point that some students and practitioners no longer see the value of field work, with the rich availability of information or data online. For this research, aerial mapping with google and google earth and street views were ways of accessing information regularly anew, and even the streetview imagery of the streets changed about annually and the software changed a few times during the life of the research. Aerial and streetview photography was used in a dynamic way during the process and these methods cannot be readily presented in written or photographic form. Complementing the sounds collected and the many personal images made, the photography assisted in the research throughout, in dialogues and in reflection, but ironically made the sound information collected all the more rare and special.

The interchangeable pattern of solid and void spaces is key to the interpreting the spatial density of inner city areas like those in the two proposed case studies. A case study of 'figure - ground' analysis method used in urban design research for architects is part of this study. The analysis technique derives from the Nolli plan techniques used in 1748 by Roman draftsman Gianbattista Nolli. "The Piazza Navona, for example, is easily identified as a "figural" element in the city, with the surrounding buildings acting as a back-up field or "ground" into which the element has been placed, or rather, carved away. In contrast, the

Modern city reverses this conceptual reading so that building is always seen as active figural object while space is imagined (if at all) as a kind of recessive, formless ether or receptacle that provides the setting for the object. In Rome, solid and void readings have the capacity to be interpreted as either figure or ground" (Tice, 2005).

The approach of the ichnographic figure and ground drawing may be compared with the drawings and analyses of Kevin Lynch's imageability analysis techniques in *The Image of the City* (1960) and Gordon Cullen's *Townscape* analysis (1961).

Figure and Ground maps were made from other existing maps including edited google maps and 'open street view' maps. Trancik's *Lost Space Analysis* suggests looking at the loss of space in the city based on displacement for: i. Automobile ii. Modern Movement iii. Zoning and Land Use iv. Institutional divestment of space All are useful aides memoire and critiques which can be applied to the street space, but they were ultimately integrated in the other forms of presentation.

Cartographic information available differs between the two case studies. Islington uses a planning portal and there is a DigiMap service providing access to Ordnance Survey data for London. In Frankfurt, the Planning Department provides detailed information through Planning information system PlanAS (*Planungs Auskunft Service*).

*Other experiments with other methods including Diagrammatic analyses of maps, drawings and models* (after Kempf 2010) (experimental) Analysis of Custom Models (*Google SketchUp 8*, cf. *Vectorworks, AutoCAD, BIM*) (]

The primary method reference here was that it was relatively straightforward to make a simple 3D model using Google sketch up. The facility exists, as I found from a colleague working in Vienna helping with the Frankfurt Model, to be able to incorporate models from a shared cloud, as was the case with Frankfurt Bahnhofsviertel.

The Google SketchUp modelling software was used to build a three dimensional representation of the case study sites. This was done using a simple software programme which is freely available for download. Colleagues and students advised me on some of the features of the software they use in architecture practice. In one case, Frankfurt, a contour

model of the base was available. In one model, trees were added. One surprising finding was the availability of shared building models such as the Frankfurt Railway station. The individual items of street furniture items, such as lamps bus shelters and telecoms cabinets were not added, as they were covered in photography. In one model, some typical facades were added using an image importing feature. Trees were added experimentally, with the help of an *architect coll*, and the impact of seasonal variability of foliage in the narrow street was noticed.

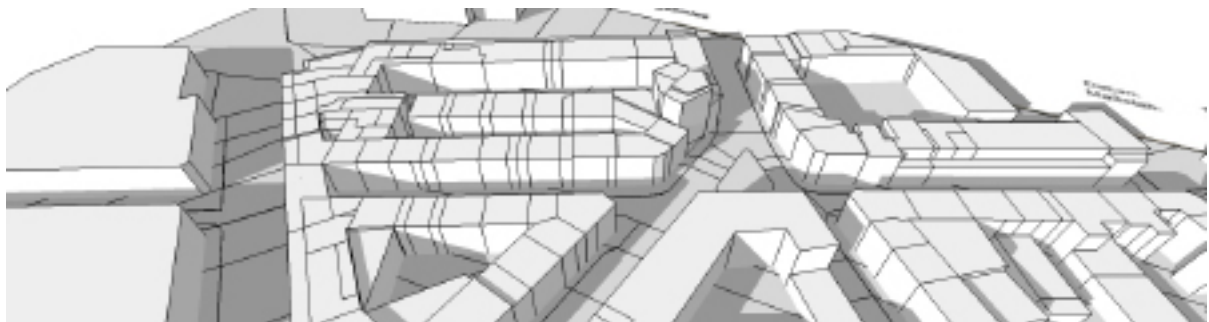


Fig. 3.10 Niddastrasse; Google SketchUp Model (Detail) Niddastrasse West---East, circled left, '(Piss)passage', right, Karlsplatz square centre east, near to drug services on Niddastrasse and also on the perpendicular Moselstrasse.

These models can be rotated and tilted in order to get satisfactory views of the issues for diagram-making.

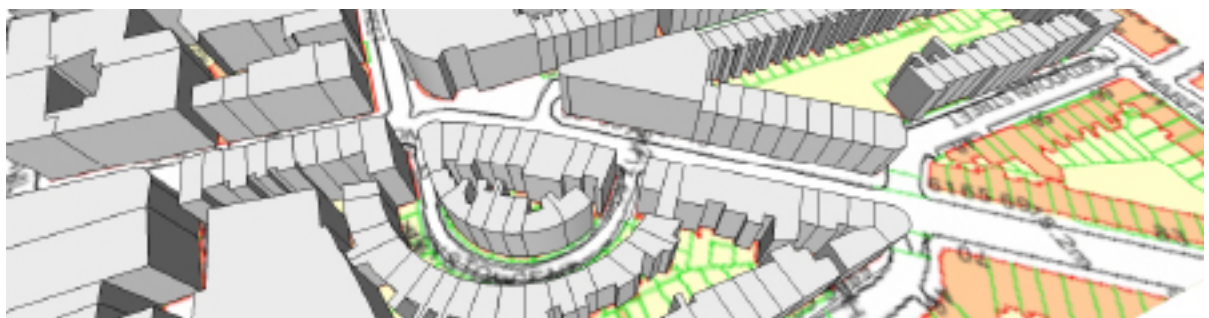


Fig. 3.11. Caledonian Road Case study site (wide angle bird's eye view)

Caledonia Street Junction is at the top left of the image

*Street Photography / Videography* (by self- live and by others, *Google streetview, Flickr, Youtube*, publications

The researcher built up a personal archive of photography, arranged in themes /sets on flickr.com, and shared and collected the work of others on similar streets subjects by means



of the social tools on the website. Similar happened with YouTube experiments and there were even some print publications in this category which were reviewed.

As part of the monitoring of the case study sites, Google street view images were viewed and occasionally copied over the course of the project and the longitudinal results reflect some of the slow changes in the area. The street view images, shown in the case study chapters, illustrate the period between 2009 and the present year 2013 (Appendices 2,3 5 and 6).

The methodology of using cameras for analysis was considered early in the research and discussed informally with Peter Jones, co-author of *Rediscovering Mixed Use Streets* (Jones, Roberts and Morris 2007) at an *Urban Design Group* event. The event as it happens was a presentation of *Home Zones* research, where Mike Biddulph, an experienced researcher of UK home zones, discussed his methods of evaluating home zones after occupation.

Based on an understanding of Biddulph's methodology, and although there are cameras collecting information at the site near the Tesco shop, the images would have to be requested and the processing of images would be unlikely to be time and cost effective. Speaking to a legal officer from Camden council in a Camden Safer Streets meeting about securing a car park against open air sex acts with local prostitutes, the officer described the many hundreds of CCTV monitoring images required to be collated as evidence in relation to a case for securing an open car parking area on Britannia Street (Near stop N see Figure 2.23). The L-shaped vacant site has a recess behind a building which is not visible from Britannia Street and had been therefore apparently chosen as a site for these anti-social sex acts. This surveillance regime I experienced in the area confirms that there is a very well-established culture in the local borough of non-human surveillance being used to combat anti-social street behaviour. This manner of surveillance addresses the behaviour visually as lewd spectacle, making imagery which has become bureaucratically very detached from engagement in the form of the walks.

It was decided for the current study that the image-based analysis methodology would not be appropriate to the research questions because of the point of view from the camera, and that on-street points of view, especially audible, abstract and points of view would be

preferred, avoiding a visual spectacle or ‘spectacularisation’. Although there was less engagement with the Frankfurt Bahnhofsviertel CCTV regime, the method seems to be less widespread or more readily accepted there.



Figure 3.12. Transport for London Streets CCTV web images from a Thursday in January 2013, at 16.27, 17.17, 18.39 and 19.29 via *TfL Jam Cam camera 7356* – although this camera is on Euston Road, the camera points north and the image shows York Way (TfL Jam Cam 2013)

#### *Participant Observations*

- i. Kings Cross - safer neighbourhoods panel (SNP) street observations, Frankfurt Bahnhofsviertelnacht tours
- ii. counting auditing, PERS 2008 (experimental)
- iii. psychogeographical and non- graphical; cycling action, bells

Regular visits were made to each of the case study sites; of which London was more conveniently accessible than Frankfurt. This made the Frankfurt experience more special. The safer neighbourhood panel and safer streets team involved live walking audits of street activity in King's Cross, and in Frankfurt I took part in a night time walk of the Red Light District as part of a Festival of the Station Quarter at Night (*Bahnhofsviertelnacht*) which has in the past five years become an annual event. Traffic counts were performed, the PERS audit (TRL 2008) was critically evaluated by first hand testing, and a range of other experimental field based observations such as sound investigations and cycle protest were all pursued.

Direct participation involved analysis of streets through a range of organisations and methods such as the street-based work of the Safer Streets Team and the Safer Neighbourhoods Team (SST/SNT) combined so-called 'super-patrol' which audits 'street activity' (begging, drug dealing prostitution and rough sleeping) by making a monthly walking assessment of activity. I have been embedded in this process as a volunteer member from the community on two of the monthly walking audits (Cowan / SST 2010-2013). Data from some of these walking street activity audits are presented in the case studies and research findings. Through Living Streets King's Cross the researcher was involved as participant observer in the Canal Trust's Towpath scheme to find ways for cyclists and pedestrians to shared the towpath more harmoniously.

#### *Audio Recorded Interviews*

i. desk interviews ii. field interviews iii. ambient / sound recordings

After initially using a Sony Ericsson phone to record pilot interviews, it was decided to try high quality digital recording. The researcher obtained a ZOOM H2N DAT (Digital Audio Tape) recorder, capable of recording in .wav or .mp3 file formats at 24 bit sound quality. Three types of recordings were made of the interviews, either at a desk or over a telephone, or in the field on the case study street, or even by telephone to an interviewee in the field in one case, and also recordings of the audible ground without the figure: the street without the interviewer.

Interviews were recorded with 40 diverse stakeholders. Four basic open questions were devised to establish the role of the interviewee and identity in context, her / his sense of connection to the street, her / his evaluation of the environment and her / his stake or level of interest in intervening in some way in the street design. The questions for the interviews were part of a standardised semi-structured framework, but the interviews became most interesting once the ice had been broken and the interviewees were more candid. One research tactic in regard to accessing hard-to-reach interviewees was to work through a gatekeeper. One example was a local church outreach worker as agent to enable access the most marginal stakeholders, vulnerable people whom the church was aiming to 'reach out to'. The gatekeeper role was one which had been developed for example in other research with hard-to-reach people – tackling ethical issues of working in the streets at night.

High quality audio recordings were made of the live interviews including on-location interviews, mostly recorded on foot in the street. Some of the interviews were recorded in the street in motion, as part of cycle actions called '*Bikes Alive*' in King's Cross. As chair of local community development charity group Living Streets King's Cross Local Group, access was available to local activist and volunteer groups.

NVivo 9 Qualitative research analysis software was used to identify nodes or themes by coding. All of the interview material was transcribed and saved in NVivo. I then went through the material and found 28 terms or concepts which occurred frequently in the transcripts. The 28 findings themes identified as nodes in the interview information were then grouped into six; which are discussed in the findings chapter.

Following methods from Cresswell's *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2009), I collected first-hand field-based information on the streets by both observation and participant observation. At some point my participation had to be scaled back, as I had become significant in the formation and guidance of the neighbourhood forum adjacent to the London case study site. I was personally involved in the campaign Bikes Alive which followed the death of a local person on the dangerous junction near the case study site. Participant observation had to be defined and my relationship to the research clarified. With new fatalities in the week of writing this draft, I remained detached, as activists criticised the mayor for "victim blaming cyclists" (Jones,

Weaver Walker and Wintour, 2013). The problematic related back to the "wicked" insoluble problem of street design: the culture of vehicles and occupiers of the street or road can never be entirely separated from the built environment of the street design.

Being in the street for interviews and for the workshop the research uncovered some unexpected findings, from an incident where I was approached by a beggar/prostitute asking for money, to interjections in which one passer-by asked for directions to a pub and another offered advice on local Mosques during one of the street interviews.

In the empirical sciences, case studies are sometimes characterised as a methodologically 'weak' method, because of lack of quantifiability of some factors, or because of some tendencies acting against precision, objectivity or rigour compared to those found in highly controlled research experiments (Yin 2003 p xiii). As a research environment, the street is a rich (or 'thick') field, and is in stark contrast with the laboratory. In the spectrum of controllable and quantifiable environments, and as a research environment, the street has many of the diametrically opposite qualities of the controlled research laboratory as a place for experiments, because it is a public space, difficult to precisely delimit, where the conditions and stakeholders may be unpredictable and difficult to quantify. This thickness and richness was methodologically tackled by initial pilots, leading to more detailed open semi-structured interviews with a limited group of stakeholders and agents. These weaknesses seem minor compared to the limitations which were discovered in the extant processes of consultation and '*mitbestimmung*' (participative decision-making as a form of coproduction) in the respective case studies; in King's Cross the '*Gyratory Review*' (2013) and in Frankfurt Bahnhofsviertel the '*Karlsplatz*' (2013) urban design project.

**Selecting the case studies:** Niddastrasse, Frankfurt and lower Caledonian Road, London

Two cities and their station areas were chosen for comparison. One which immediately presented itself was the researcher's adopted home neighbourhood of King's Cross and the

other was Frankfurt Bahnhofsviertel. Having visited the latter on a study tour in 1987 and on weekend trips from Graz 1989-1990, the area had become familiar again as a base working for the architects 1100 architekt for a few months in summer 2009. The researcher attended a tour during the annual *Bahnhofsviertelnacht* (Station quarter at night) festival and became curious about the unapologetic branding of this red light area, not only for sex tourism but as a kind of edgy multi-cultural and night-scene area with some unusual clubs and creative residents.

Frankfurt Central Station was once proposed to be significantly rearranged into a through station in a 1990s project called Frankfurt 21, similar to the project Stuttgart 21, which has caused great political and urbanistic controversy and disruption in that city over several years (Selle 2011), and has caused some German city planners to despair of citizen participation in Germany (Selle 2013). King's Cross has also been an important regeneration site since the 1970s and 1980s (Bertolini, 1998) and in the 1990s and 2000s was significantly redeveloped with most of the key infrastructure components of the station now complete, and the Station Square at the town centre newly refurbished. Kings Cross is now officially recognised as being the new home of Google, which is to build seven and eleven storey office buildings alongside the station in King's Cross.

Some of the similarities between the two chosen case study streets are their geographical proximity to their respective stations. Each is ten minutes' walk to international high speed railway stations, to which each one runs parallel at one city block remove. The map shows the case study streets / sections are of similar lengths (several hundred metres or ten minutes' walk) in mixed use areas. While Frankfurt is a small city, it is part of a large urban agglomeration, the Rhein Main conurbation.

London is a global city, although slightly less connected with wider Europe's high speed rail network. There are many differences in language, culture, post-war regeneration policy, planning, architecture and urban form, including participation processes and forms of localism.



Figure 3.13 German ICE train from Frankfurt calls at St Pancras International

### **Frankfurt-London Connections**

*Deutsche Bahn's* plans to connect Germany and England directly by fast trains using the Channel Tunnel Rail Link (CTRL) by 2013, were announced in 2010. The London-Frankfurt train journey was to be reduced from 6 hours to 5, and a DB ICE train ran a slow-speed test to *St. Pancras International* in 2010). The article suggested that the 200mph bullet trains "aims to replace passenger jets as the main transport to Germany's financial capital"(Massey, 2010). The plans were postponed until in 2013 it was again announced the direct London-Frankfurt Intercontinental Express (ICE) link would be launched in 2016 (Massey 2013).

At the same time the researcher had been involved in the developing neighbourhood of King's Cross which had been home since 2007. Local people had been rallying to make demands of the local authority and developers of the station area in King's Cross. He was also a strong advocate for inner city cycling because of the street scene and the air quality implications, having cycled as a principle mode of transport for some time. A community development interest he had nurtured in Mongolia turned to London and the researcher

tried to get involved in building a better sense of conviviality with neighbours and other street users in King's Cross through a local Living Streets group.

A comparison between King's Cross railway station quarter and Frankfurt railway station quarter was considered a potentially valuable comparison in urban design terms. The case studies were selected because they are similar in several ways, and they are both near railway stations. The case studies are both located next to large international railway stations in European cities; one a focus of the British Isles, the other a focal point of continental Europe. Both study streets are non-central streets to their respective station areas, and both are non-frontal and follow the side flanks of the station rather than aligning with its front or the station square. Both of these streets are visually obscured from the respective station square, which is to say they cannot be seen directly from the respective station squares. They are connected in many other ways, however, by proximity, economics, accommodation, local transport, business complementarity, food and drink, convenience.

In both cases, the streets run parallel to the sides of the stations, and provide a supportive rather than a visually focussed connecting vista to the station square. Both streets provide traveller accommodation for rail travellers from the respective stations, and provide international connections for travellers, as well as regional and local transport connections for all kinds of private and commercial business. In both cases, the case study street areas straddle administrative zone boundaries. In Frankfurt it is the Bahnhofsviertel development area and the Gallusviertel development area to the west. In Kings Cross the area straddles two wards, the Kings Cross Ward of the London Borough of Camden and the Caledonian Ward of the London Borough of Islington. In each case, the case study areas are not annexed visually to the station, and they are located just far enough away, 5 -10 minutes' walk, that people taking trains or interchanging might skip going to them if there is a fully appointed retail shopping arcade offer available in the station.

Both case studies are streets lying alongside large impermeable stations which are approximately one kilometre long and twenty tracks across. The back sides of each have a predominantly vehicular crossing, which is to say the stations, both above ground end stations with city centre-facing firewalls, are highly frontally oriented.



Both case studies are areas in the 'shadow' of sunshine or 'leeward side' of the regeneration of the railway stations because the stations offer something akin to a shopping centre complex, and a destinations which reduces the viability of these marginal side streets which flank the station and are obscured from it. Both studies have extensive underground transport in addition to surface transport, but the major stations are at ground level. Some of the significant differences between the two case studies are that they are in two different countries with different languages and cultures. One case study (Frankfurt) takes a direct and positive approach to being a red light area (Frankfurt) while the other keeps adult entertainment and sex-related entertainment very quiet or invisible, certainly without red lights. One case study, Frankfurt, has trams as street level public transport, and the other (London) does not.

The Frankfurt railway station quarter was defined from an early stage not only as melting-pot of people from all over the world, but also as a *Rotlichtmilieu* Red Light Area or scene. Rosemarie Nitribitt was arguably the first and only celebrity among Frankfurt prostitutes in the noir era. In 1957 she was found strangled in her apartment, and the case remains unsolved (Steiger, 2007 translation by the author). Nitribitt's celebrity as an elite call girl, before and after her murder is highly symbolic. She seems to have epitomised fast paced success and sudden fall from grace into the underworld, with her fast car and dangerous company in an era of money, power and underworld business.



Figure 3.14 1950s celebrity prostitute Rosemarie Nitribitt (Steiger 2007)

In summary, there are both significant similarities and differences between the two case studies which makes them ideal for comparison. As well as straddling two wards, both streets run alongside large, impenetrable international stations undergoing regeneration. There are comparable urban design issues such as permeability and grain, as well as comparable policy issues around management and redevelopment. Both streets are also obscured from the station areas and are host to similar commercial endeavours. In contrast, as is demonstrated in the Findings chapter, both streets also illustrate different approaches to street management and, ultimately, their sense of place.

Some of the significant differences between the two case studies are that they are in two different countries with different languages and cultures. One case study (Frankfurt) takes a direct and positive approach to being a red light area (Frankfurt) while the other keeps adult entertainment and sex-related entertainment very quiet or invisible, certainly without red lights. One case study, Frankfurt, has trams as street level public transport and the other (London) does not. One has a strong tourism brand as an adult entertainment area (Frankfurt) where King's Cross is branded or noticeably oriented to adult entertainment to a much lesser degree.

### **Methodology - Conclusion**

The methodology developed here is identified within the framework developed by Merten as cited in Groat and Wang (2002), as shown above. The interviews emerged as the leading research method, after the pilots and initial fact finding and background research. The selection of participants was based on the idea that hard-to reach street users would provide a more diverse set of information about complex inner-city streets in station areas. In this, the constructivist approach – multiple interviewees each have their own socially constructed realities – and these multiple realities are shaped by marginalised values, making the interviews emancipatory in nature. In the epistemology, the link between the researcher / interviewer and the interviewee research participants made for a constructivist-interpretative epistemology, and the social and historical situatedness of this research added an emancipatory intentionality to the interviews. I had considered this emancipatory intention somehow implicit, perhaps from an interventionist background of my discipline as an architect. The interviews extended the possibility of emancipation – in

unexpected ways, through the church minister and the sex workers' advocate - and made a link to actions by the interviewees.

Following the introduction to this chapter, and the illustrative mini-case study of Marchmont Street, the background to this research was located in the researcher's life and work as an architect. The research methodology proper for this thesis was located within Groat and Wang's 'Tripartite framework' as a constructivist-interpretative research methodology, with an emancipatory intention.

The research interest, located in streets and the nature of urban design (after Buchanan 1992 and Biddulph 2012) describes street design, like urban design, as a "wicked problem", one which is constantly shifting and whose limits and variables are impossible to pin down. Now that the selection of the case studies has been discussed and the methodological framework for the urban design analysis methods have been discussed, it has been shown that these contribute to an interpretative-constructivist and emancipatory methodology. It was shown how multiple methods in the pilot phase were simplified down to a mixed methods approach with four main groups;

1. Participant Observation - **comparative** case study, contextual analysis, history, culture. (Yin 2009 p 127-164). Participant Observations including site-based field work research with reference to grounded / free field work research, *abenteuerfeld forschung* (Sutterlüty, Imbusch 2008)

2. Semi-structured interviews with professionals, semi-structured interviews with street users in the field and semi-structured interviews with professionals, Analysis of interviews with use of NVivo qualitative research software  
Audio Recorded Interviews i. desk interviews ii. field interviews iii. ambient / sound recordings

3. desk-based research of policy and publications including traditional field- and desk-based drawn urban design analysis

#### 4. Spatial Analysis – including 3D modelling using sketch up, Figure Ground Analysis and photography

Desk based and field work methods were employed for contextual research and primary action research respectively, to investigate how a better understanding of the inner city street would improve street design. The site-based semi- structured / grounded field research by participant observation *abenteuerfeldforschung* (adventure – experimental field research) (Sutterluety and Imbusch 2008) engaged some stakeholders directly in the research through the interviews, and also engaged them in the wider participant observation research as hosts and research co-participants. The process represents a contribution to knowledge for the street design discipline. Although street design promotes first principles in brief development, in general practice as experiences, street design lacks on-site, late-night and sound-based investigation components. This study highlights these latter innovations in the context of normal street design methods and of ‘normative’ urban design practice.

This concludes the methodology chapter and leads us to the detail of the two case studies, which were sited in Frankfurt and London.

# Frankfurt 4

case study

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

## Essential Features

The **urban context** for the Frankfurt case study, which is the Frankfurt Rhein-Main conurbation, has a population of 5.6 million (Handelskammer Frankfurt 2011) while the city of Frankfurt am Main at the centre of the metropolitan area has a population of 693,000 (Statistik Hessen 2013).

The ***Bahnhofsviertel*** - the station quarter - centres on railway lands which were the urban focus of the western part of the city since the introduction of railways in 1839 (Hessen 2005, p.25)

Frankfurt ***Hauptbahnhof***, the central railway station for Frankfurt, was built in 1888 and has always been an international station.

**Case Study Street:** Niddastrasse, Bahnhofsviertel. Postcode Frankfurt 60329.

Located between GPS locations 50.111849, 8.669711 (junction of Gallusanlage and Niddastrasse) and 50.106771, 8.656592 (junction of Hafenstrasse and Niddastrasse)

Length of street section studied: 1130 metres. Full length of the street, made up of nine links, from street number 2 (corner Gallusanlage) including junctions with Weserstrasse, Elbestrasse, Moselstrasse, Karlstrasse, Duesseldorferstrasse, Ottostrasse, Ludwigstrasse, Ludwigstrasse, to street number 104a; corner Hafenstrasse.

There are 82 buildings mostly between 5 and 7 storeys high.

Deprivation levels (Index of multiple deprivation): lowest 40% most deprived overall in Frankfurt (City of Frankfurt 2011).

Building vacancy rate: approximate 20% (vacant lots / derelict landmark buildings; 2)

Indicative pedestrian traffic volumes in the area - see 'Spatial' section below on page 123

## 1. Introduction

This case study chapter introduces the study area of Niddastrasse, in the *Bahnhofsviertel* (Railway Station Quarter) in Frankfurt. To illustrate the comparative form of case study analysis, the Frankfurt case study and the London case study are presented in the same format. The aims of this chapter are to first introduce Frankfurt and Niddastrasse in the *Bahnhofsviertel*, setting out first the historical context of this inner city street in Frankfurt, and its spatial formal and programmatic qualities. This chapter analyses the existing design of

the case study street in the station quarter and red-light quarter of Frankfurt. The case study provides background on the architecture and policy landscape and investigates how the street currently works. As a basis for the inquiry into improving the urban design quality of liveability of the street, the chapter reviews Niddastraße in detail, and examines the tensions and policies which have informed the current situation.

This chapter outlines the first of two street design case studies, a street in the west of Frankfurt, just outside the garden ring which was built around the former location of Frankfurt's medieval city walls. The street is called Niddastraße after the nearby lost river Nidda. The Niddastraße case study is in Frankfurt's central railway station area, which was established as a grand late nineteenth century commercial quarter. The case study street now connects a planned red-light area and a hotel neighbourhood. Based on the literature and methods discussed in the previous chapters, a spatial formal and programmatic case study was undertaken as the context for the research. This chapter aims to give the reader an overview of history, policy, and the architecture and planning context of this street in Frankfurt's Bahnhofsviertel.

### **Research Question**

The main research question applied to the case study is “how can streets be designed to meet diverse user requirements?” A sub-question was to investigate and to understand the diversity of functions that streets facilitate in their context.

In the context of how streets are currently designed in the case study area, the research investigated how street design processes may be improved. The research investigated how day and night activities and functions and cultures of streets are supported, with respect to both the quotidian day to day functions and also the aberrant or deviant night time activities – the noir culture of the street. The research asks, how do these qualities make the railway station area distinctive? How are movement and place balanced, in terms of the roles of diverse occupants whether purposefully resting, moving or wandering, given the differences of weight, power, and often the domination of motor vehicles? How does user participation play a role in street design and changing streets in the case study context?

Streets have certain special qualities in the station area. There is an evening entertainment character to the urbanism here which is somewhat curated. This case study of Niddastrasse in the edgy, noir station quarter of Frankfurt, framed the research questions in the live field work and the desk-based urban analysis methods as explained below.

*Frankfurt am Main* has become internationally better known than the smaller city *Frankfurt an der Oder*, in the former East of Germany. Both Frankfurt and London case studies are presented here in similar formats, to reinforce the comparative method used in the research. The case study examines the Niddastrasse as an urban environment, an occupied place beyond primarily being a movement system setting out the historical context of this inner city street in the station area. The case study sets the context and environment for the interviews and urban analysis.

### 1.1 Global position of Frankfurt

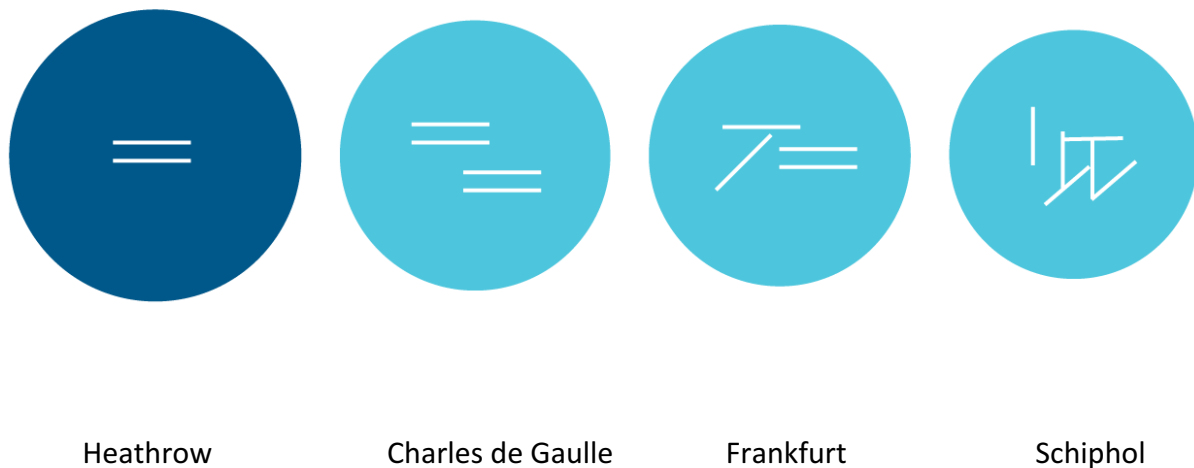


Fig 4.1. Map: London and Frankfurt in Europe – Inset: World with UK and Germany shaded



## 1.2 Location

Frankfurt am Main is an internationally significant European urban centre, only 477 miles from London, and played an increasingly important role in Europe and the world since the second World War. Frankfurt was rated as a ‘highly connected global city’ in terms of the Alpha World Cities analysis of the Global and World Cities network based at Loughborough University (Beaverstock et. al 2002, GaWC 2008). At the beginning of the millennium, Frankfurt and London were considered almost comparable on a Global and World Cities (GaWC) index, in terms of their respective finance sectors and their respective levels of global connectivity. This rating is expressed as ‘integration’ in the Global Cities Network. Frankfurt in 2002 was rated as Alpha+ - “Other highly integrated cities that complement London and New York, largely filling in advanced service needs for the Pacific Asia”. It then gradually fell to a ranking at Alpha, meaning “Very important world cities that link major economic regions and states into the world economy”. The comparison is detailed in the work of Beaverstock et al (2001 and 2006).



Heathrow UK Runway length 7,562 metres - 50-60 planes per hour  
 Frankfurt Germany Runway length 14,800 metres - 50-60 planes per hour

Fig. 4.2 Graphic comparing Airports in Europe: left to right Heathrow, Charles de Gaulle, Frankfurt, Schiphol (Topham 2015)

Frankfurt features in the airport comparison with London, around the 2015 release of the Davies Report on airport expansion in London. Heathrow Airport has 72 million passengers

per annum with two runways, Charles de Gaulle Airport has 62 million passengers per annum with four runways, Frankfurt Airport has 58.2 million passengers per annum with four runways, and Schiphol Airport has 52.6 million passengers per annum with more than four runways. The comparison shows that Frankfurt's main airport has a far greater runway length than Heathrow's, yet has a similar throughput of aircraft landing and taking off. These figures were used in debate about the need for another runway at Heathrow to make London competitive (Topham 2015). The role of air freight movements, the transport connections on the ground and the weather and physical conditions would all be part of the detail which is a study in itself.

In 2015, Frankfurt was ranked by Arcadis as the world's most sustainable city - above London's second place - in the Arcadis Sustainable Cities Report which assesses the balance of "people, planet and profits" (Arcadis 2015). According to the report, cities across the world are performing better for being sustainable for 'Profit' and Planet' than they are for 'People'. World cities and economic powerhouses such as London, New York, Paris and Tokyo have had their rankings for 'People' penalized because of affordability (Arcadis 2015).

The authors explain that housing availability and affordability, as well as a more ethical ecological footprint, make Frankfurt superior in its system ranking the sustainability of 50 top world cities. The liveability with which this study is concerned, however, is at a specific street based level.

<p><b>London – Frankfurt</b> - 477 miles (768 km)          automobile - A3 - minimum 8 hrs 28 minutes          rail - 5 hours 34 minutes (dependent on departure times)          air - 1 hr 25 mins direct flight plus airport transfer times and check-in times</p>
<p><b>London - Paris</b> - 288 miles (463 km)          automobile - A4 - minimum 5 hrs 10 minutes          rail - 2 hours 15 minutes to 2 hours 27 minutes (Eurostar)          air - 1 hr 10 mins direct flight plus airport transfer times and check-in times</p>
<p><b>Paris - Frankfurt</b> - 572km (355 miles)          automobile - A4 - minimum 5 hrs 10 minutes          rail - 3 hours 52 minutes (ICE)          air - 1 hr 15 mins direct flight plus airport transfer times and check-in times</p>
<p><b>Frankfurt - Berlin</b> - 551 km (342 miles)          automobile - A4 / A9 - minimum 4 hrs 50 minutes          rail - 4 hours 18 minutes (ICE)          air - 1 hr 10 mins direct flight plus airport transfer times and check-in times</p>

Fig. 4.3 Table of European intercity connections between four key urban centres (Information sourced by the author from various travel planning websites, June 2015).

Frankfurt is located on the River Main in the German state of Hessen. It is near the confluence of the Main and Rhine rivers. The conurbation or ‘urban agglomeration’ (FH Frankfurt 2015) of three urban centres - Frankfurt, Mainz and Wiesbaden - around the confluence is known as the *Rhein-Main gebiet*.

The city of Frankfurt more narrowly defined is located between the spa towns at Bad Homburg and Bad Soden on the west and the river settlements Offenbach and Muelheim along the River Main to the east. The map of Frankfurt in Europe (Figure 4.1) shows it is geographically centrally located in the European Union and in Western Europe. In the contemporary economy of globalised cities, as research by the ‘Global and World Cities’ network suggests, connectivity and flows are more important than geographical location (Taylor 2010a). Frankfurt, however, is prominently located on air, rail and road networks, as the researcher has found travelling there by rail and air over the past years.

Architectural hallmarks of Frankfurt include Exhibition halls by F.V. Thiersch (1907), O. M. Ungers (1984), and Helmut Jahn (1989), but also include being "home to Europe’s largest

and busiest train station, one of the busiest airports in the world and some of Germany's busiest Autobahn crossings" (Sennott 2004 p.474).

Frankfurt, located centrally in mainland Europe, is distant from the British Isles not only because of the English Channel and different monetary currency, but because of its 'continental European' history. Germany and its neighbouring countries share the European Union's largest spoken language, German (EU 2008 p 5). The European Union is actively multi-lingual, but English is the most popular foreign language in the EU (EU 2008 p 5). The *European Central Bank* in Frankfurt became the banking centre for the Euro through *European Monetary Union* since 1999, and Frankfurt is home of the European Central Bank and the Euro currency, which became the second most powerful currency after the US Dollar (Beaverstock, 2002). A study by the *Global and World Cities Institute* comparing London and Frankfurt as financial services centres in the world economy concludes that the cities may be considered also as complementary to one another rather than purely in competition with one another (Beaverstock 2002).

The image shows the word 'frankfurt' in a bold, lowercase, sans-serif typeface. The letters are black and set against a plain white background. The 'f' is notably tall and thin, while the 'u' is short and wide. The overall style is clean and modern.

Fig 4.4 Frankfurt 'brand' by Pentagram design studio (Pentagram 2015)

### Historical evolution of the area

Frankfurt is based on a Roman settlement, *Frankconovurd*, the "Ford of the Franks" built across the Main River. In the first Century BC, Roman Camps had come up to the Rhine River at Mainz, Kastel and Wiesbaden, while indigenous people, mixed with Germans and Celts had been in the Taunus area and to the north. Tacitus in 98 AD described the "tough folk of stocky build, defiant expression and particularly lively spirit" (cited in Gerteis 1961 p 34 trans. Cowan) who later became the Hessians. The Romans ruled from 83AD until 249AD (Gerteis 1961 p 34). A church, and later cathedral were established on the *Domhuegel* Cathedral Hill, in the 7th century (Batton Kelchner 1869).

Prior to being the railway station quarter, the *Bahnhofsviertel* was an outlying rural area, originally swampy. Being beyond the western gate of the medieval city, it was the location for the gallows, which was earlier removed from the city centre. The associated stigma of the area was of not a fine residential area, but of an institutional location *Galgenfeld* where a hanging gallows stood there on a hill or mound from c.1561. Coincidentally, it was beneath this point where a former burial ground was also later discovered from the earlier city. With reforms in Europe, the hanging gallows was later replaced by the more humane *Guillotine*, and the latter then removed for the birthday of Napoleon I in 1806. Gallus is the name later given to the gate from the medieval city, *Gallusanlage* being the green area around the old western gateway of the city. As railways came into the area, this became an industrial area and with the new Hauptbahnhof in 1888 a proud and urbane business quarter of Frankfurt.

In the *Gruenderzeit*, or Founder Epoch – there was a development of this area around the industrial period of the 19th century and with the establishment of a new railway station in 1888, this building heralded a new era and a more prosperous era of industry in Frankfurt. The buildings around the railway station, the Bahnhof, were then associated with proud expressions of the power by the industrialists of that era, especially the wealthy spin offs from industries like chemical and dye makers including *I G Farben* whose offices were later converted into a university. The planning of the station area was laid out in a grand and gridded manner, owing something to the influence of Hausmann, after much design development (Schomann 1988 p74-79). Around the railway station, a series of parallel,

wider boulevards, make an orderly urbanism to showcase the proud *Grunderzeit* era of architecture, which is the German equivalent of the Victorian period.

Between 1870 and 1914, 740 private buildings were erected in the railway station area. Bahnhofsviertel was a mixed use area of commercial buildings, hotels, restaurants, amusement and 'above all' residential.. "*Geschäftshäusern, Hotellerie, Gastronomie, Amüsement, und vor allem Wohnen*" (Stadt Frankfurt 2007 p9). About 70% of the buildings were housing stock with shops at street ground level. Bahnhofsviertel as a recognisable city district was effectively complete as a city quarter by about 1913-14 (Schomann 1988, p 287). The area was acclaimed by the press in 1925 for its civic qualities and impressive department stores (Schomann 1988 p290). In 1930, the first modernist building was introduced into the area by a union. The nine storey *Gewerkschaftshaus* was protested by neighbours – with some justification from an urban design point of view, according to the historian Schomann (1988 p288) – but the political symbolism of the organisation won over (Stadt Frankfurt 2007 p9). Hitler's Nazi party is shown in photographs occupying the streets of the Bahnhofsviertel in a mounted military parade in 1937 (Schomann 1988 p290).

There was extensive bombing by the Allies in Frankfurt during the second world war, which is documented in Schomann (1988, p 290 – 292). There are hundreds of bombing sites in the direct area of the Bahnhofsviertel, being a target for allied bombing in the war to deter Germany from expanding its empire.

The World War 2 bombing raids destroyed 215 of the 857 buildings in the Bahnhofsviertel area, and a third of the buildings of Kaiserstrasse and Bahnhofspatz (the station square) were lost (Schomann 1988 p 290), with a particularly devastating effect on the city image.

### ***The postwar period***

According to Schomann (1988) 26% of the 857 buildings in the '*Bahnhofsviertel*' area were completely destroyed, but the Strategy plan notes that while 215 buildings were bombed, 235 buildings were demolished after the war (2007, p 10). "From the fall of 1943 to September 1944 and especially on the night of 22 March 1944, the historic center of Frankfurt was almost completely destroyed by Allied bombings; of 47,500 buildings, fewer than 8000 survived at least in part. After the war, expecting to become the headquarters of

Allied occupation forces, Frankfurt's planners elected to reconstruct their city based primarily on considerations of efficient traffic arteries and large building lots rather than restoring the original medieval city fabric" (Sennott 2004 pp 473-474).

Previously, historicist architectural styles of buildings were predominant, but the post war reconstruction of the area was characterised by unornamented modernism. Schomann notes the changing image of the Bahnhofsviertel area through a series of axonometric drawings from city plans by Bollman, in 1957, 1960, 1971, 1977 and 1981. (Schomann 1988 p 293)

Apart from Schomann's comprehensive work of conservation and historical documentation, the main policy document for the Bahnhofsviertel area is the Baustein 1/07 – the District Development Concept Plan (*Stadtteilentwicklungsstrategie*) (Stadt Frankfurt 2007). The policy document sets out the work done on the area including some sociological research, literary workshop and some creative approaches.

Geographically positioned more centrally in the former West Germany than Berlin, Frankfurt had been a candidate for the German capital city before the reunification of East and West Germany. After its bombardment by the allied forces, at the end of World War 2, it was a US base and it became a very international city. American cultural tastes could be seen as a significant influence in the post war with the modern architecture, motorised streets as "efficient arteries" and also the background to establishing the cosmopolitan entertainment and red light district for the new occupiers of the city.

*Stadt Frankfurt* - the city of Frankfurt, became part of the state of Hessen in 1949. A cosmopolitan culture was established in Frankfurt after World War 2, and with the strong presence of US Americans and Allied Forces and the military base, it can be argued there was some cultural influence of US policy, not only financial, on developing the image of an international city "*Mainhattan*" on the Main River as a west German capital city.

The railway station area was initially outside the medieval city walls and was a rural area which once acted as a gallows field. The area has a recent history as a 19th century industrial area and a late 19th century / early 20th century commercial area, before the high rise character developed in the post war period, with Frankfurt's image developing as a

global capital city, representing West Germany and finally at the turn of the century, representing the centre of the Eurozone, with the ECB location there. This investment in the Eurozone was further consolidated with the Stock Exchange (FTSE) and the expansion of the ECB into the Market Hall, a mega project which spans both sides of the Global Financial Crisis.

A vibrant growth period in Frankfurt followed the relocation of the West German Central Bank there in 1957. Frankfurt grew into 'Bankfurt' – the largest banking and stock exchange centre in Germany, and revived its tradition as one of Europe's largest and most architecturally significant convention centres. The railway station quarter was part of the nineteenth century growth and benefited from the twentieth century growth.

In 1963 the first pedestrian underpass opened in the Bahnhofspatz. A new law passed in 1963 allowed the construction of the U Bahn – the underground railway, to relieve pressure from the *Strassenbahn* (streetcar) network, and the UBahn opened in 1968 (Stadt Frankfurt 2001).





Fig 4.5. Rebuilding of the centre of old Frankfurt – Frankfurt *Roemerberg* 1963 competition drawing for the reconstruction of the centre of Frankfurt-Römerberg, by Candilis, Josic, Woods and Scheidhelm. (Calabuig *et al*, 2013)

For a moment in the post-war period, an architecture and planning ideas competition for the rebuilding of the historical medieval centre of Frankfurt suggested the possibility that the old city might be rebuilt on a brutalist walking grid.

The Frankfurt plan entails thoughtful interaction with a well-established setting. The local council that organised the competition wanted to rebuild the city centre in keeping with the historical character of a site that had been bombed during the war, by using "town planning featuring small blocks – either modern in style or imitating the old ones". However, the planning approach was based on a compositional network that could be adapted to cater for the city's future needs. The authors defined the project as a "flexible megastructure on a scale directly related to the pre-existing construction" (Calabuig *et al*, 1976 p 317).

The *Stadtteilentwicklungsplan* 1980 provided for extending 'tolerance zones' for the Red Light District, focussing largely on Niddastrasse and the parallel Taunusstrasse in the area close to the Railway Station – residential use was to be moved entirely to the south of the Kaiserstrasse central axis. At this stage, the Moselstrasse was not yet significant as a connection between north and south areas (2007 p 15).

In 2005, at the time of producing the 2007 strategy for the Station Quarter, the Red Light and Amusement area had been reduced to two blocks of Niddastrasse and Taunusstrasse, and banking and financial services uses had expanded in the east end of Niddastrasse. The 'Niddasac' portion of the street between Karlsplatz and westwards to the arcaded walkway was now allocated to *handwerk und hotellerie* workshops and hostelry (2007 p 16).



Fig. 4.6. Frankfurt (Falk Plan) The folding tourist map shows Niddastrasse between the flank north of the railway station and running parallel to tower blocks toward the centre and the Taunus Ring Park (*Taunusanlage*) 1:10 000 approx.

The railway station is in strategic and urban planning terms a key feature of the city and part of its international identity in its architecture and urbanism, analog to the way the airports are landmarks of international travel and city-branding. The station square at the front of the station – a peninsula station rather than a through station in this case is also a symbolic point of arrival and an urbanistically key urban place for the street-level topography.

#### *Bahnhofsvorplatz - Station Square*

Frankfurt station was completed 1888 when the square was an interface between foot passengers transfer rail, coach or tram Since the early 21st century there has been a

succession of schemes for developing the Bahnhof area in order to make the city more attractive and to promote residential and creative life and accommodation in that area of the Bahnhofsviertel. Designs were made for the *Bahnhofsvorplatz* the Station square – a scheme around the turn of the 21st century for a new design of the square, directly in front of the railway station. An architectural competition was won in a tie by two groups of architects, lesser known and better known. The architects Schneider + Schumacher proposed a thorough re-design of this area to improve transport connections, but the project is on railway owned land and funding stalled. There is a scheme for Karlsplatz within the Niddastrasse, following an apparently successful model of another small square off the *Gutleustrasse* called *Wiesenhuettenplatz*. The various schemes are part of a wide strategic vision with three tiers of funding at National State and local level.

The German national railways have clearly invested a great deal in the area, including the station and the directly adjacent areas on the station site. In the 1980s, an underground concourse shopping arcade was developed, connecting pedestrian access under the station forecourt, and regarded as modern or futuristic at the time (Schomann 1988). However, as a semi-public area it has also been a controversial space in recent years, the name *B ebene* - B level - taking on the connotations of a second class society, inhabited by homeless people staying warm (Benkel 2010).

A long process of architectural competitions promoted jointly by the city and the railways eventually led to proposals, published in 2009, to make a grand public space on the station forecourt. In December 2012 it was announced in the news that funding from the city for the station square - the *Bahnhofsvorplatz* was no longer available (Goepfert 2012). The Railway company plans now focus on internal renovations for the shopping area associated within the station.



Fig. 4.7. Bird's Eye view along Niddastrasse, second street from the right, photographed from the Main Tower, by the author, on 6 Sep 2009.

#### Research Questions

The case study set out to apply the research questions to the Niddastrasse case as follows: In the design and occupation of this inner city street, the Niddastrasse in Frankfurt, how can streets be designed to meet diverse user requirements? The initial pilots suggested the matter was not purely a matter of movement, and would in some measure have to do with understanding the users, especially those not usually considered. It would ask how are day and night activities and functions of the street facilitated, with respect to these users, and both the quotidian day to day functions and also the more enjoyable, aberrant or deviant night time activities – the noir culture of the street. It seemed that already these noir aspects make this place distinctive. The research would investigate how movement and place are balanced, in terms of the roles of purposefully moving and wandering occupants given the difference of weight, power, and motorisation? The research would investigate how user participation plays a role in street design and changing streets in the case study context, This case study of Niddastrasse is a frame for the research questions in the live field work and the desk-based urban analysis.

The research set out to investigate, through the research question, how can streets be designed to meet diverse user requirements, whether they can be made more walkable and more attractive to people as urban places. The research set out to find out how might this street develop more '*aufenthaltsraumcharakter*' a 'living room' quality or liveable quality, so that people might feel a desire to linger?

The distinctive features and characteristics of this railway station quarter are the international station and its cosmopolitan and late-night activity, the entertainment scene and the development of bohemian inner-city living and creative industries. The railway station connects Frankfurt by ICE (Intercontinental Express) trains to and from France, Austria, Switzerland and many other countries in continental Europe, in a highly developed network of high-speed surface travel. The station quarter is also a gateway for fast train transfer to the new station at Frankfurt International Airport. Frankfurt's airport is a major hub in Europe's flight networks. The Trade Fairs or *Messen* in Frankfurt date back hundreds of years (Gerteis 1961 p95), and are now held on the dedicated *Messegelände*, or Trade Fair grounds, about a fifteen minute walk from the Bahnhofsviertel.

Major traffic arteries for vehicular traffic flow through the station area are shown in Frankfurt's *Stadtteilentwicklungsplan*, the district development plan (Stadt Frankfurt 2007 p 25). Two arteries with "*hohe verkehrsdichte*" high traffic volumes – cross the Niddastrasse, at the Karlstrasse / Karlsplatz, and at Düsseldorfstrasse near the tram station "Platz der Republik". Niddastrasse itself is secluded from most of the main through traffic. Some kerb crawling is reported to occur at the eastern end near Elbestrasse in a narrow, dimly lit one way system, close to the Elbestrasse (Benkel, ed. 2010, p.196-204, Interview F21).

### **Spatial Formal and Programmatic Analysis**

The Niddastrasse case study examines what appears to be a typical inner city Western central European street in a station area. It is a continuous public space and like many streets outside the immediate frontage of the railway station, is not pedestrianised or modernised and remains motor-car dominated. The residential occupation of the area is strong but not very obvious, and the provision of green open space in the immediate area is minimal but not inconsistent with what is typically expected.

This street as a continuous space is broken at the centre by a pedestrian only link through buildings but preserves pedestrian permeability for the tram stop in the centre at Duesselderstrasse. The city end of the street in the shopping and entertainment area is lively but feels slightly unsafe because of the visibility here of the open drug scene in Frankfurt.

Niddastrasse is made up mainly of handsome post-war buildings, some are austere and even crass, where reflective glass overcladding or pre-fabricated new facades have been used, and where the multi-story and podium carparking, dominates at street level at the east end, ostensibly to supporting the central business district as a finance or 'banking quarter'. The centre of the street between Elbestrasse and Duesselderstrasse looks lively and appealing at street level, with a range of shops, restaurants and cafes, including one on Karlsplatz, the square. The western end of the street alongside the flank side of the station is quieter, with more trees and has better preserved buildings including pre 2<sup>nd</sup> world war residential buildings.

Programmatically, Niddastrasse accommodates some of the less prominent businesses of the area, and has more of a hotel and residential emphasis than a commercial one. The placement of health services, notably the Café Fix substance support service and injecting rooms which are part of the city's family services, and which in line with the city's affirmative action policy for substance dependency, attracts substance users and misusers from the region. The case study explains the planning frameworks for street design and how apply in Niddastrasse, and how users and agencies were interviewed to address the research question, 'how can streets be designed to accommodate diverse user requirements?'

## Spatial



Fig. 4.8. Station area plan (figure ground drawing)

The figure ground analysis shows that the station area streets are densely built up, with the station and railway yards to the west featuring as a major figure. Additionally, the green 'ring' park around the former city wall, at the east on the plan, is a significant ground/unbuilt area. It is a recreational use which was helped to justify the overshadowing caused by high rise construction at the eastern end of Niddastrasse. Afternoon shadow from the tower falls on the park, the Gallusanlage (Stadt Frankfurt 2012, p.19).



Fig 4.9. Photo of Niddastrasse looking west from the Chinese Conference Hotel

Niddastrasse is a lesser known or non-landmark inner city street in this intensively used inner city area. It runs alongside the station at one block's remove, so is not visible from the station or vice versa. It is accessible indirectly on foot at all ten junctions along its length including by footway at the centre from the tram station '*Platz der Republik*'. One part of Niddastrasse near this is used for a tram turning spur, and most of Niddastrasse is accessible to vehicles and in most parts, through traffic. No public transport lines run along its length.

Land uses are mixed in a three dimensional way, layered above one another, especially above the street or in basements. The categories conventionally used to apply land use codings were considered too limited to reflect the diversity of uses in the area, so that commercial uses were subdivided to articulate adult-only evening and restaurant entertainment, adult-only shops or gambling premises or other licenced premises. Traditionally commonplace in this respect is the office and residential use above street level and commercial use at street level. Basements below street level, some of which were once service spaces, are also lettable areas for commercial and entertainment purposes, sometimes visible and easily accessible from street level.





4.10. Niddastrasse Upper Levels - Uses



#### 4.11. Niddastrasse Ground Level - Uses



#### 4.12 Niddastrasse Basement Level - Uses

An approximate sketch of uses was made based on visual assessment of buildings, and looking at door entry systems and windows to make an approximate assessment of whether office residential, commercial or entertainment uses were inside. In the red light area, there is some obscurity and ambiguity with regard to uses, as the researcher experienced when inspecting one of the evening entertainment establishments which looked like a bar on the outside.

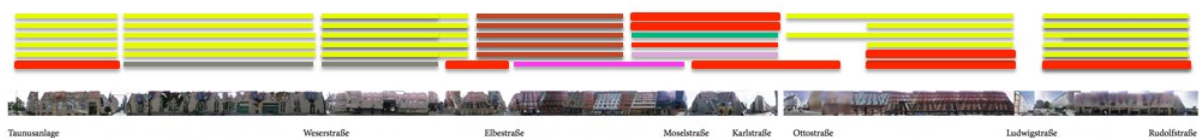


Fig 4.13 Diagrammatic elevations with estimated land uses as assessed in field work.

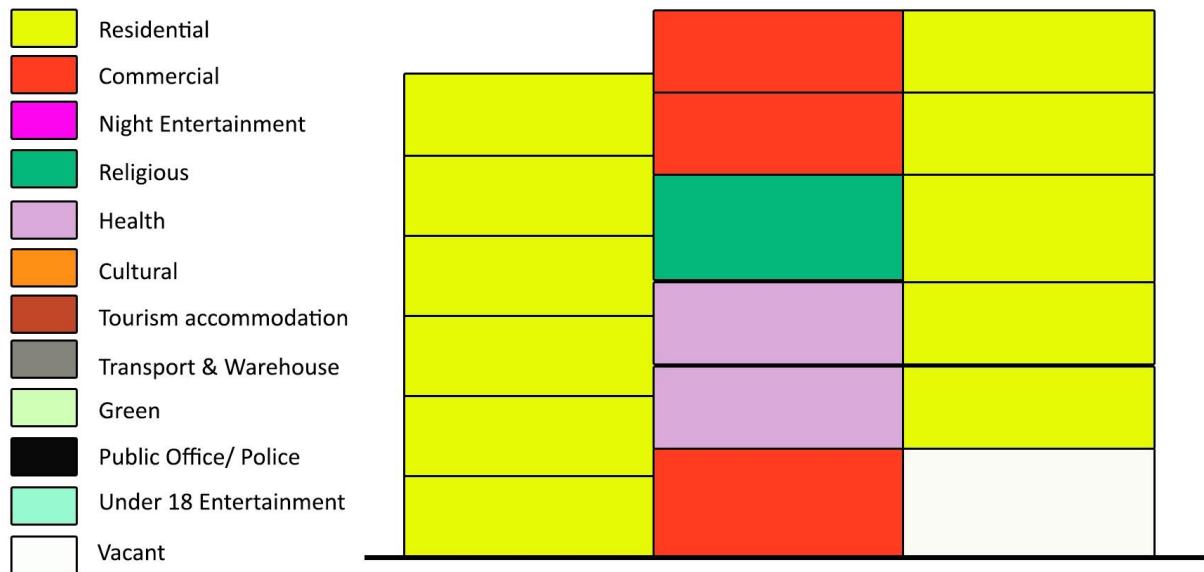


Fig 4.14 Land Use elevation detail.

Centre; Niddastrasse 49, Ground level café, First and second floors, Frankfurt Family department (Substance users and narcotics advice) and Third floor, Lion of Judah evangelical-charismatic church. Example section: 47 - 49 - 51 Niddastrasse – juxtaposing residential and informal residential with commercial, and health and religious uses.

### Pedestrian Counts

Pilot footway pedestrian counts found that about 140 people per hour to as many as 400 people per hour were passing along footways on summer evenings at dusk in the area. The footway users were not analysed in detail but there was a range of ages and genders including children in pushchairs and some elderly people, and no noticeable element of anti-social behaviour,

A pilot pedestrian count at Münchenerstrasse 38 gave the pedestrian rate of from 140 people per hour passing on a weekday evening (counted at 2100hours on Thursday 8 July 2010- Cowan) up to 400 people per hour on a weekday evening (counted at 2000 Monday 5 July 2010 - Cowan)

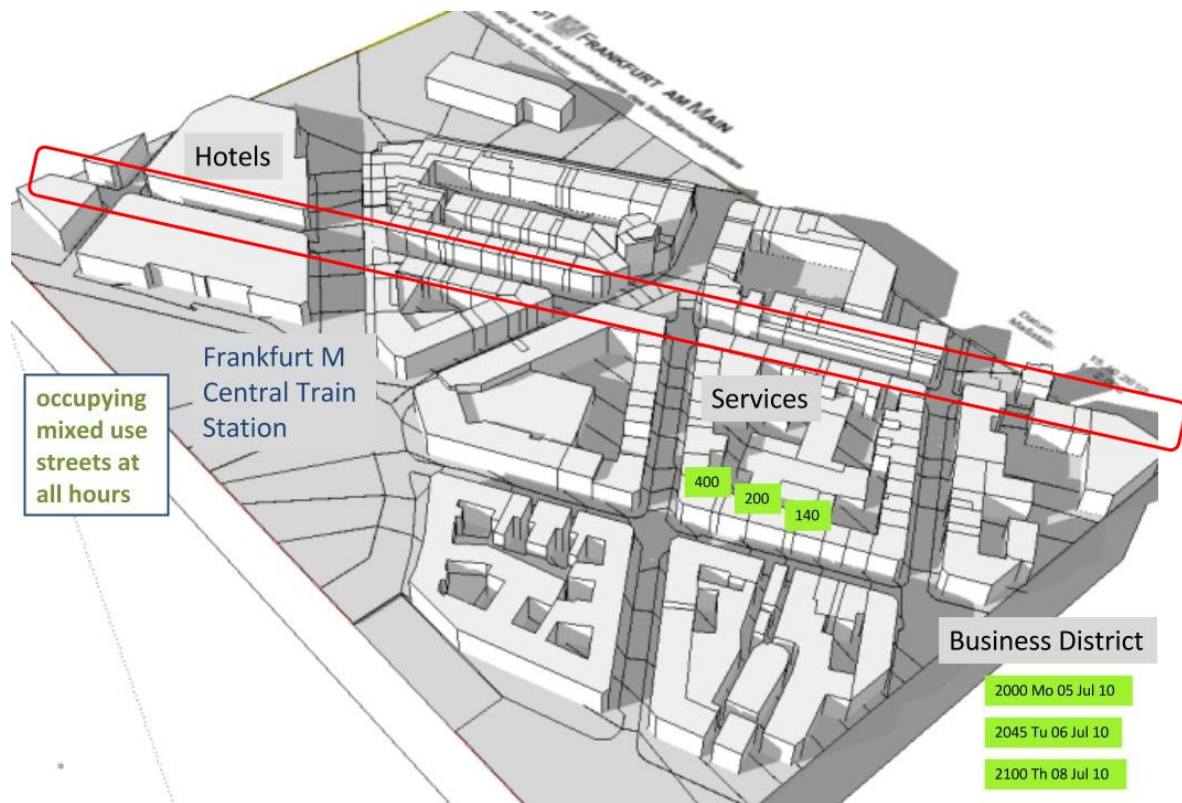
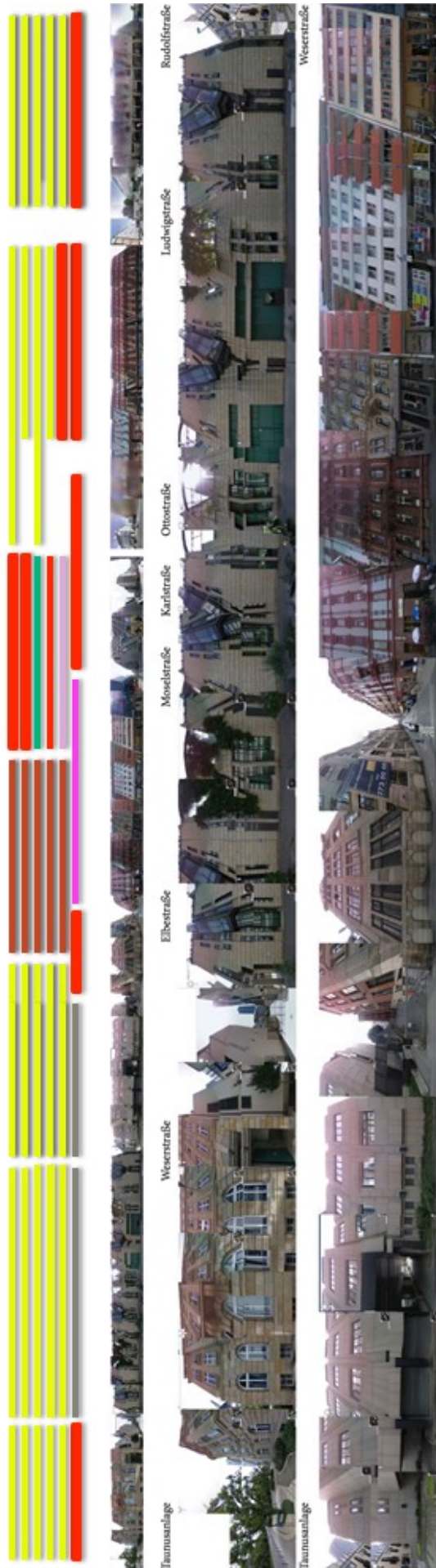


Fig. 4.15 Manual pedestrian counts were made in 2010 in order to assess the volume of people on the pavements at different times of night and day. (Niddastrasse circled).

A pilot field visit in July 2010 included video filming of locations in Elbestrasse, Kaiserstrasse, Muenchenerstrasse and Niddastrasse.

A sketch of building uses was made based on visual assessment of buildings, and looking at door entry systems and windows to make an approximate assessment of whether office residential, commercial or entertainment uses were inside. In the red light area, there is some obscurity and ambiguity with regard to uses, as the researcher experienced when inspecting one of the evening entertainment establishments which looked like a bar on the outside.



- Residential
- Commercial
- Night Entertainment
- Religious
- Health
- Cultural
- Tourism accommodation
- Transport & Warehouse
- Green Spaces
- Public Office/ Police
- Under 18 Entertainment
- Vacant

Fig 4.16 Niddastrasse uses sectionally (see uses code on right)

Diagrammatic plans and elevation with estimated land uses as assessed in field work.

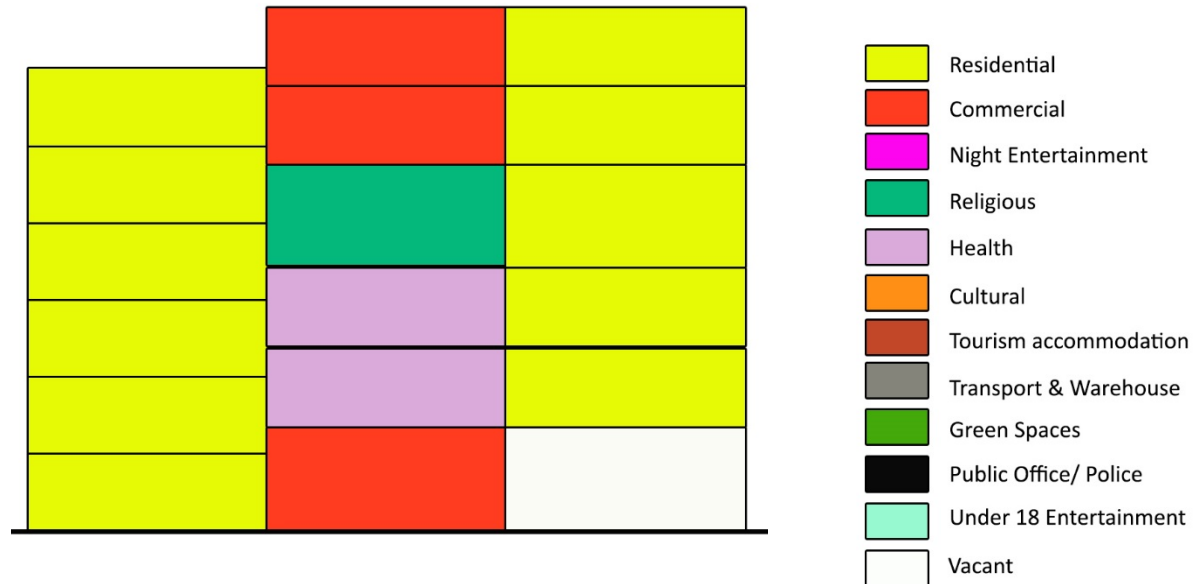


Fig 4.17 Land Use elevation - Example section: Street numbers 47 – 49 – 51 (detail). Centre; Niddastrasse 49, Ground level café, First and second floors, Frankfurt Family department (Substance users and narcotics advice) and on the Third floor, Lion of Judah evangelical-charismatic church.

Some of the building uses were only discovered through interviews or based on desk research. For example, The Gibson Music Room is a guitar studio in the basement of the Levis 24h Hotel (Niddastrasse 58) and is known to the musical community as a rehearsal and recording space. Niddastrasse building uses juxtapose residential and informal residential with commercial, and health and religious uses.

### **Programmatic - Planning Arrangements**

The next section is a discussion of Frankfurt's planning context. The diagram in Fig. 4.18. below shows the agencies and frameworks involved in planning policy relevant to street design in Frankfurt. Frankfurt land uses are regulated and planned using the German system of the *Bebauungsplan*, built development plans which define permissible planning parameters on a micro-district plan by plan basis. The case study street chosen spans four plans; B466, B526 and B391 and B881.

With the federalised government funding system for urban development funding in Germany, Frankfurt is under considerable competition from other German cities. This could be a disadvantage in dispersing the financial effort put into some issues in Germany but it may serve to keep Frankfurt on its toes. "London, on the other hand has no real competition in the UK and its absence is sometimes apparent in the way it conducts business." (Hamblin 2002 p )

There is a clear and federalised hierarchy of planning responsibilities in German cities like Frankfurt, one of several important centres. With respect to responsibility for planning the public realm and semi-public realms in the street, there is a division between highway authorities and local planning authorities, the latter operating at a more localised spatial planning level. In the *Bahnhofsviertel* in the railway station vicinity there is a national railway authority which is responsible for its semi-public realm, but also operates throughout the country at a larger scale. The example of the station square below illustrates the overlap and segregation between the various public authorities in the design and management of public and semi-public spaces.

The diagram below shows the agencies and frameworks involved in planning policy relevant to street design in Frankfurt.



## Policy

The diagram shows the agencies and frameworks involved in planning policy relevant to street design in Frankfurt.

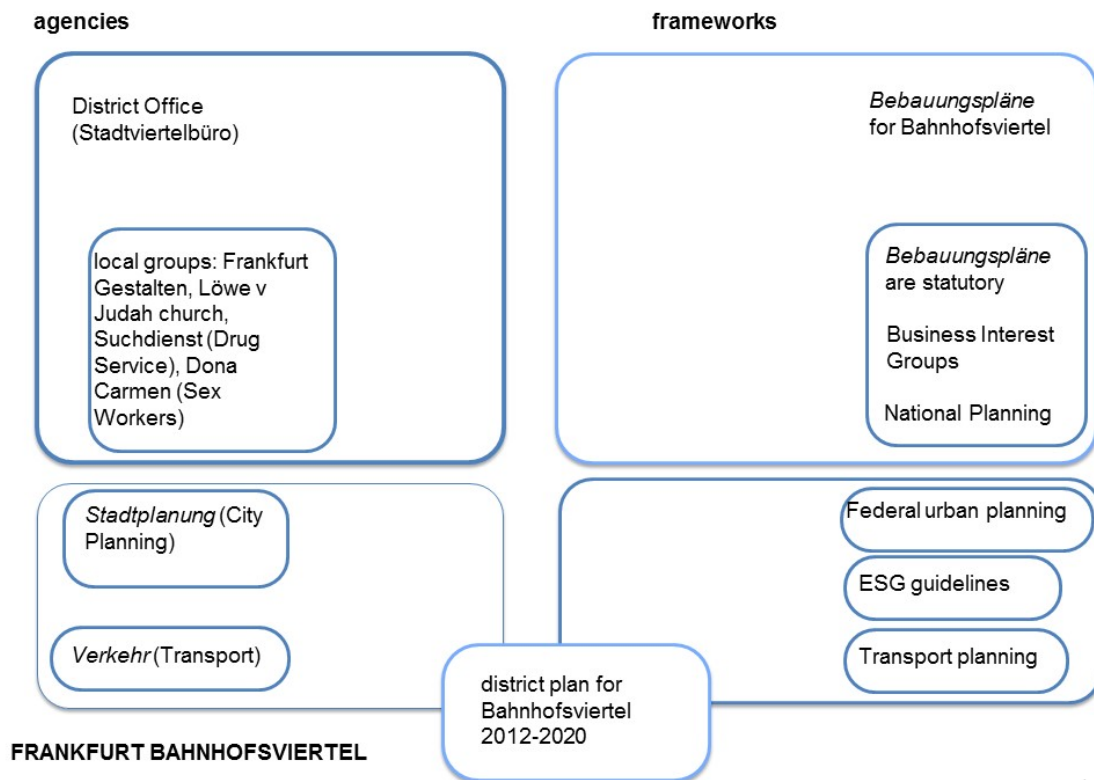


Fig 4.18 Policy Context *Niddastrasse* , *Bahnhofsviertel* - by the author

## Participation



Fig. 4.19. *Frankfurt Gestalten: Buerger machen Stadt* Design 'Frankfurt: citizens make the city'

This entry in Frankfurt's online citizen participation system requests the elected local member (*Ortsvorsteherin*) to follow through with a commitment to install Pissoir(s) to deal with the problem of public urination.

## Policy Context

National urban planning and building guidelines are applied federally across many German cities and states, in a more distributed manner than is the case in London, which is exceptional for the UK and for Europe.

Frankfurt and Frankfurt Rhein-Main are in the German federal state (*Bundesland*) of Hessen.

Since April 1 2011, cooperation between the various municipalities in the conurbation and the structure of the Regional Authority FrankfurtRhein has been regulated by the “Act governing the Metropolitan Region of Frankfurt/Rhein-Main (MetropolG)” (Stadt Frankfurt 2015).

City-wide planning rules apply for the City of Frankfurt (*Stadt Frankfurt*) but attention is paid to each district as a local planning area, at the scale of *Bahnhofsviertel*, which is one of Frankfurt’s most densely populated and demographically and culturally diverse areas.

The relevant high-level policy institutions are the established German Federal systems of the federal ministries, and these cover physical planning in a different way to the UK system. Infrastructure and Urban Affairs is the remit of a *Federal Ministry of Transport, Building and Urban Development* (BMVBS) and spatial planning is by the *Federal Office for Building and Regional Planning* (BBR).

Germany’s Federal Spatial Planning Act was enacted in 1965, setting out an institutional framework of procedures of spatial planning. In 1967, a Ministerial Conference for Regional Planning (MKRO: *Ministerkonferenz für Raumordnung*) was established, for the purpose of inter-governmental coordination on planning issues as well as for the establishment of basic concepts regarding spatial planning. Federal Spatial Planning Act was significantly revised in 2008, enabling the federal government to establish spatial plans.

Federal Construction Law (1960) and the Building Code (1986) are the bases for each local authority to formulate an F Plan and a B Plan (*Bebauungsplan*). The federal Spatial Planning Act requires that F and B Plans be in conformity with the regional plans. In addition there are Landscaping Plans (L Plans), Green Plans (G Plans) and Transport Plans (T Plans) (MLIT 2013). In metropolitan areas, planning authority structures vary by German state but in the

case of Frankfurt, in the state of Hessen, Spatial Planning uses these two levels of plans. In the case of the City of Frankfurt in the state of Hessen, these constraints and guidelines are accessible through the *Plan AS* portal, the Planning Information Service.

**Stakeholder mapping - Frankfurt**

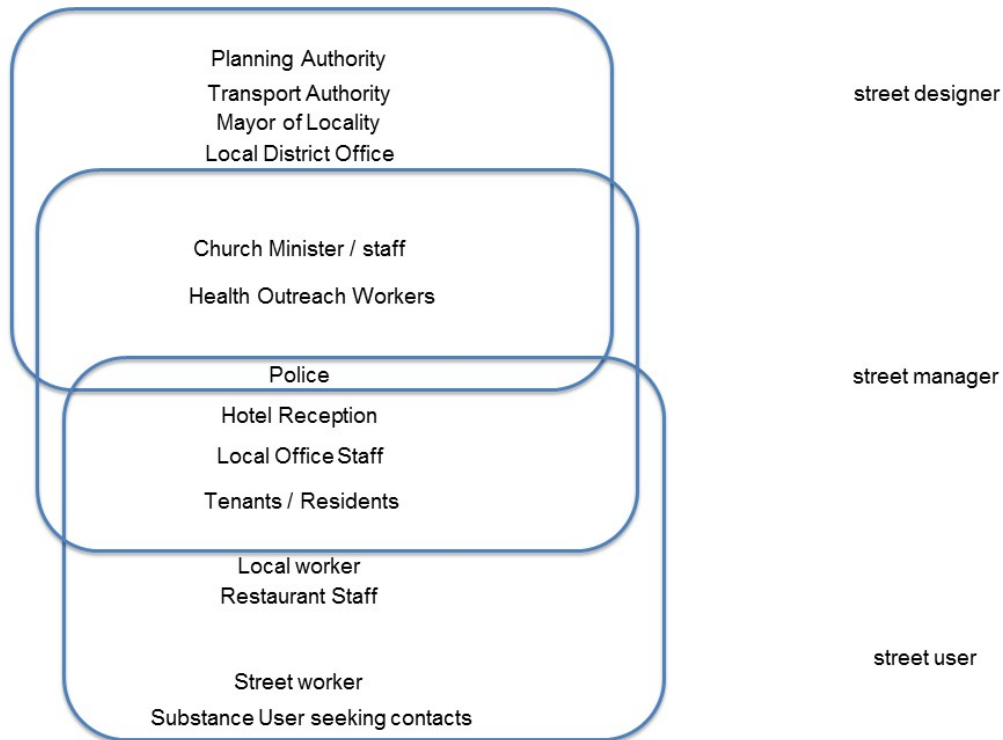


Fig. 4.20 Frankfurt planning hierarchy

This map shows stakeholders in the street in Frankfurt, from the *Aemter* (public authorities) to institutions and establishments on site, Hotels, Churches, Clinics, and at the bottom of the hierarchy, pedestrians with an anonymous - or sometimes even illicit - stake in the street. Dona Carmen, the Union for Sex Workers, campaigns for these vulnerable workers at the bottom of the hierarchy of empowerment in civic affairs.

Regional policies are developed by the Federal Ministry of Economics and Technology (BMWI). Some of the main laws guiding the work of spatial planners, architects and urbanists are the *Städtebaurecht*, Urban Planning Law and the *Baugesetzbuch*, Building or Construction Code. Similarly, there are policies at this level for Building Use

*Baunutzungsverordnung* and for Real Estate Valuation, the *Immobilienwertermittlungsverordnung*.

With the backing of the art-historical and conservation architecture resources such as Schomann's (1988) *Das Frankfurter Bahnhofsviertel*, the locally applicable and readily digestible spatial planning policy *Baustein 1/07 Stadtteilentwicklungsstrategie* (2007) which refers to other policies including Frankfurt 21, makes the planning information process accessible.

### The selection of interviewees



Fig. 4.21 Stakeholders

As shown in the methodology, the range of stakeholders was assessed and a cross section of street users was approached, along with representatives of agencies which are typically involved in street design through planning processes.

The main tensions in Frankfurt Bahnhofsviertel and policies which have informed these tensions are now outlined.

It was reported in 2013 that, as agreed with *Deutsche Bahn* the German railway network, initial planning would begin on a barrier-free design of the station square, and also a re-ordering and re-structuring of the trafficked areas and the entrances to the *B Ebene*. (Gottwals 2013 transl. Cowan).



Fig. 4.22. *Bahnhofsvorplatz* (Station Square) January 2009, Schneider Schumacher architects' competition scheme (Schulze 2009)

At the other end of the scale of grandeur of architectural projects, the proposal for a public toilet or *pissoir* (urinal) for Karlsplatz has existed for years, at least since the pilot studies for this research in 2009. The question page (number OF370/1) dedicated to this issue on the Frankfurt citizen participation website asks the local member for the Bahnhofsviertel area to question the planning department on the 29 October 2013 as to when this *pissoir* was to be complete. The questioner says the proposal has existed for in various forms for 20 years and cites the January 2013 result of the citizen participation workshop. The *pissoir* project seems to have been separated from the Karlsplatz proposals due to start in 2014. There is a lively participatory tradition in Frankfurt, as in many German cities, and this is reflected in the origins of the *Stadtteilbuero* – District office - in the *Bürgerbeteiligungsverfahren* - participation process - the culture of participation in urban planning. This culture of

community engagement and community development is interlinked with social movements and welfare state traditions in West Germany from the post war period. The problematic of online engagement arises, with the new ‘tools’ available for participation.

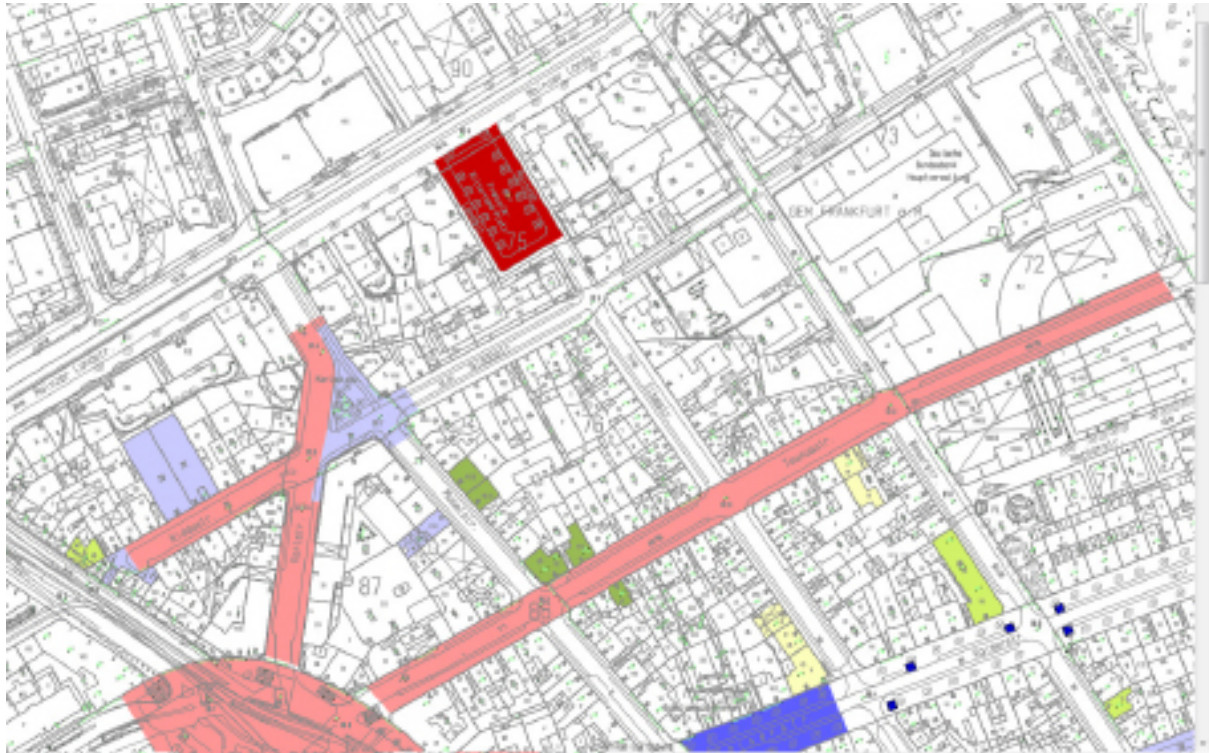


Fig. 4.23 excerpt from the strategic plan of the Bahnhofsviertel area (*Projekte des städtebaulichen Entwicklungskonzeptes*, City of Frankfurt 2011)

legend: - At left light green Düsseldorf Str. 14 (in progress) - Pavements to pedestrian tunnel entrance / *Verlagerung* Relocation of Cafe Fix (planning stage) - Pink Niddastrasse / Karlstrasse, light blue Niddastrasse, light blue Karlsplatz - Blue: *Projekte mit Förderung aus Stadtumbaumitteln* Projects funded by City Restoration and Renovation funds - Green: *Projekte mit Förderung nach der Städtischen Richtlinie* Projects funded under City ByLaws Red: *Projekte aus städtischen Haushaltsmitteln*: Projects funded from the City's household budget.

### Who manages streets and how? Observations and Pilot Studies

A television documentary, 'Bankers Beggars Brothels' about the management of Bahnhofsviertel shows that private security guards are employed to look after the shops and to remove undesirable or dangerous customers. The private security staff – the example in the video is the security guard Sigrid, with decades of experience in the field – are engaged by a shopkeepers' cooperative to pre-empt and deal with any trouble with the members of the public (ZDF *Banker Bettler Bordelle* 2013).



Fig. 4.24 "What are you looking for?" (ZDF 2013)

*Sigrid auf ihr sicherheitsrunde* Sigrid on her security round. Private security staff are engaged by businesses in an organisation similar to a 'business development area' association or a town centre management organisation. This is considered a necessary supplement to police presence in the area given the demographic and the reputation for anti-social behaviour in the form of rough sleeping, substance using and abusing, street dealing and soliciting and combinations of these in the red light area.



### Programmatic

This section gives a more detailed descriptive account of Niddastrasse. There are three main sections, starting from Tausanlage the green ring city park, the section of four blocks to Karlsplatz Niddasack is distinct, with the passage and the tram station on Düsseldorferstraße, 'Platz der Republik'. The third section is alongside the railway station from Düsseldorferstraße to Ottostrasse.

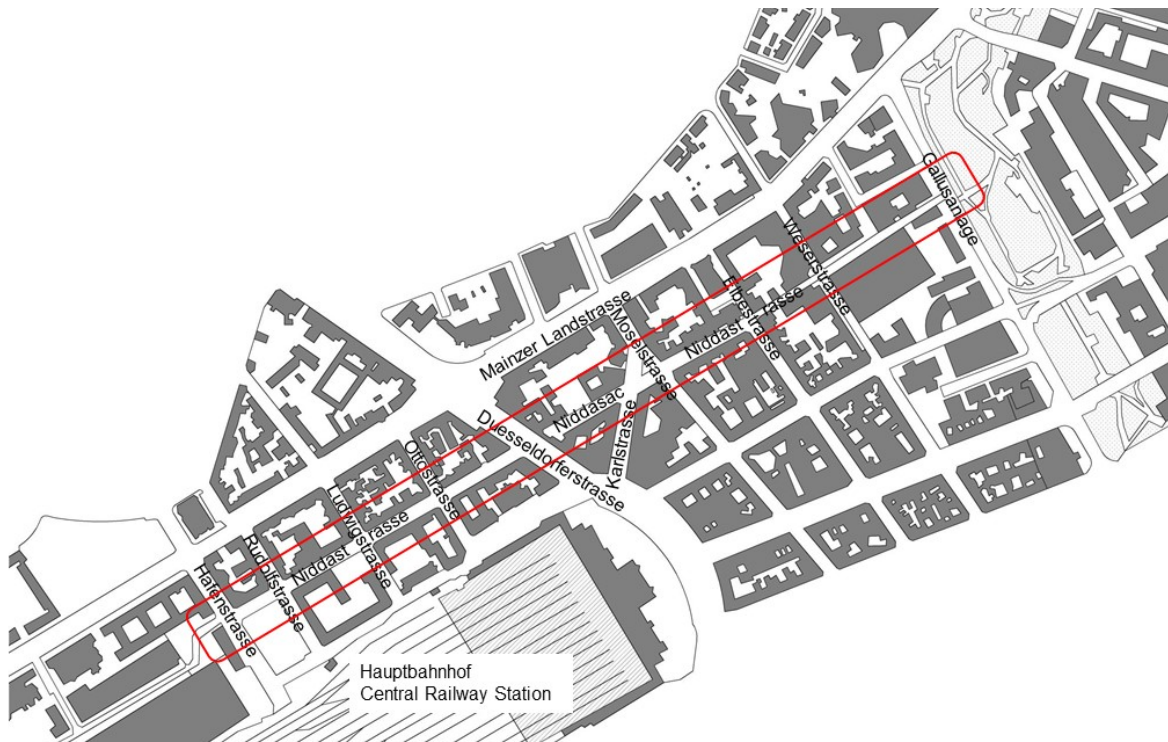


Fig. 4.25 Niddastrasse, Location map of Case Study



Fig. 4.26. Niddastrasse corner Moselstrasse – view westward (Cowan Flickr) see also **appendix**

Street and buildings type and typology block by block



Fig. 4.27 Aerial photograph from the south

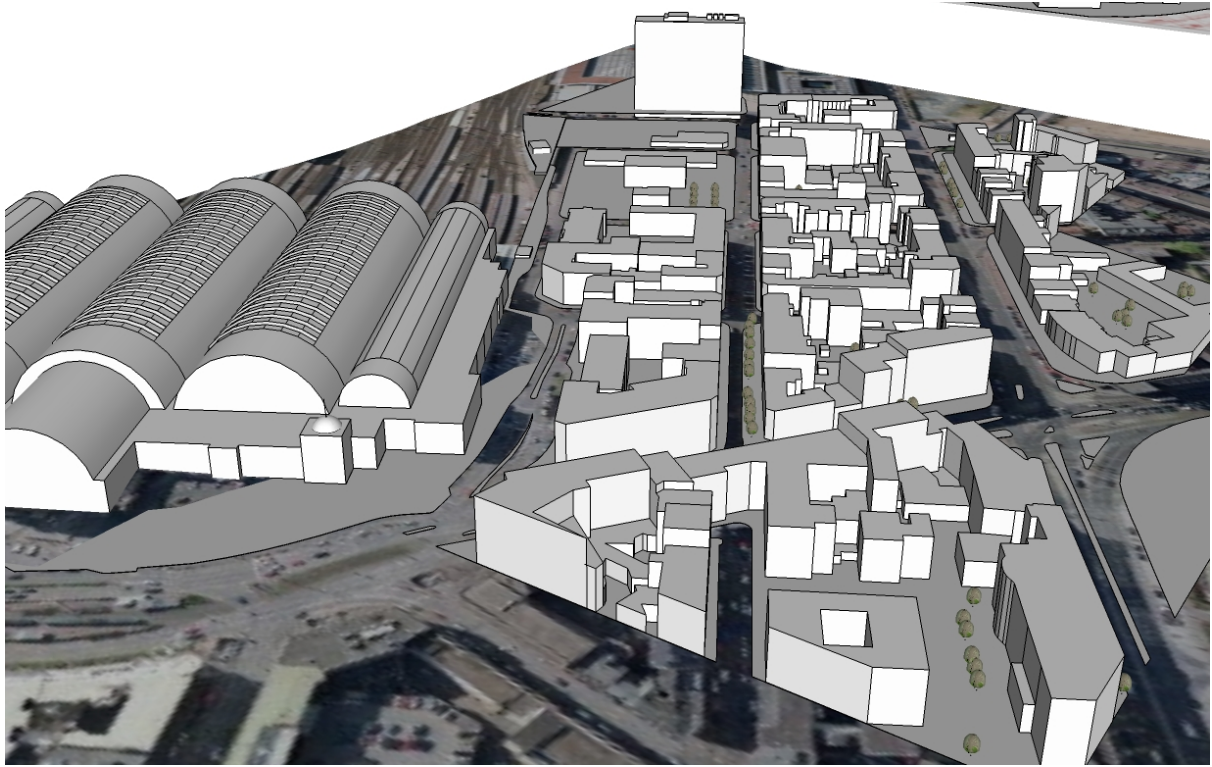


Fig. 4.28 Early model view



Fig. 4.29 View from Main Tower (Photo by the author 2009)

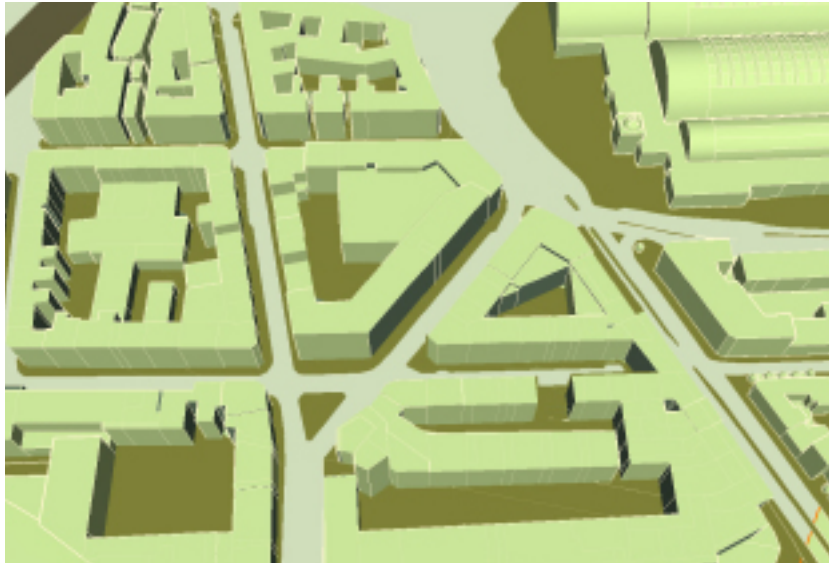


Figure 4.30 Model: aerial view of Niddastrasse model section from the north Elbestrasse (left-east) to Karlspatz, middle and the Niddasac to the right. Station at right in the background.

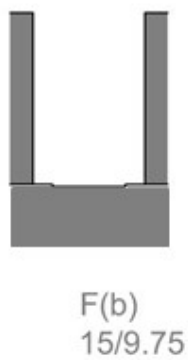
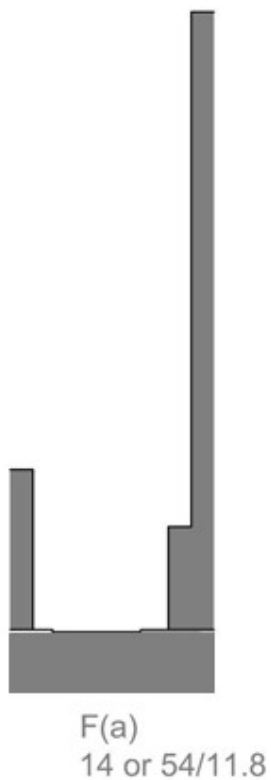


Fig. 4.31 Sections of Niddastrasse, height to width ratios of 1.18 and 4.57 at (a), 1.53 at (b)

We begin the orientation tour at the *Gallusanlage*, an urban park forming part of a green inner ring around the site of the former medieval city walls. This part of the ring is named after the medieval City Gate *Gallustor*. *Gallusanlage* is also the name given to the parallel arterial road, at the beginning of the Niddastrasse from the low number end. The first

narrow single lane part of Niddastrasse runs between the Gallusanlage and the Weserstrasse, and is one-way westbound only for traffic, with narrow footways. There is no contraflow cycle lane or cycle permeability in the direction from east to west. This part of Niddastrasse has a line of parallel parking on the north side with a row of trees. Opposite, there are some very low planters. This part of the streetscape is characterised by rather closed-fronted building forms onto the street, with remarkably few features, interest or activity on the street facade, and little or no transparency or overlooking onto the Niddastrasse on either side. Combined with the next slightly more permeable block, between Weserstrasse and Moselstrasse, it is notable for the anonymity and placelessness of the environment there. This is the darkest and most foreboding part of Niddastrasse at night, with minimal levels of ‘normal’ pedestrian activity after hours, and as a dark place only a few hundred meters away from the brightly lit street of the licenced brothels, it was mentioned that it has attracted some of the most desperate addicts to sex working illegally there, literally on the footway (F 21).



Fig. 4.25 Figure and Ground

Weserstrasse is the next perpendicular street forming a junction with Niddastrasse westwards from the Gallusanlage. With respect to signs of inhabitation, distinctive architectural features or other hallmarks, this is a very anonymous-looking junction with very little facade transparency or activity onto the street, as with the first link described. This street link or urban block is characterised by parking garage entrances and mostly concrete and hard building materials, without any overlooking or "human surveillance". Niddastrasse eastbound from here and Weserstrasse are both one-way traffic streets, and there are some 'no entry signs' and street name signage combined with litter bins. Bollards line this part of the Niddastrasse on both sides, possibly designed to prevent pavement parking, onto narrow footways and the closed bases of five storey buildings on each side. The environment appears to have been designed to control motor vehicle drivers, in the way that it has been made difficult for vehicles for stopping, standing, parking or presumably 'kerb-crawling' in cars for walking sex workers. On the south side, the ground level is roller shuttered, and there is a grassed planter garden in front of the building on the south east corner. There is some metered street parking provision, a garage entrance and parking driveway gates. There is an old villa, with the street level closed with barred windows, and with no pedestrian openings or entrances. This urban block of this street is effectively a vehicle tunnel flanked with narrow access footways. The lighting of this part of the street at night, by seven metre high lamp standards, is mainly for traffic safety and for visibility of traffic signs, with apparently little consideration for providing comfort for pedestrians walking at night.



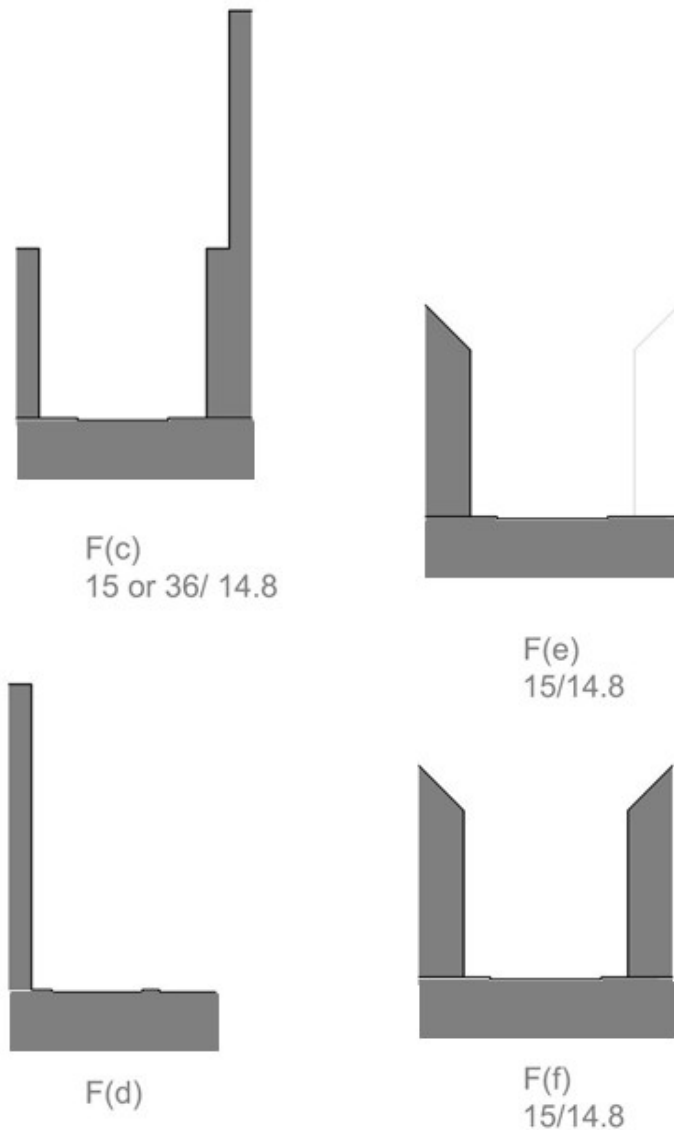


Fig. 4.26 Sections c (ratio 2.4) and d, e and f (ratio 1)

Moving westward, marking the eastern end of this block is Moselstrasse, which is a visible centre of activity, and brightly and festively lit, night and day, and an iconic part of the *Rotlichtviertel* Red Light Area. The main features at this junction are the *Metzgerei Stürmer*, at Niddastrasse 37, a type of delicatessen / butcher where people buy simple inexpensive lunches and may either eat at tall tables on the pavement, or take away. It is a landmark business which appeals to a very wide range of customers, including uniformed factory staff and manual workers and those in suits described in interviews as ‘bankers and finance people’.

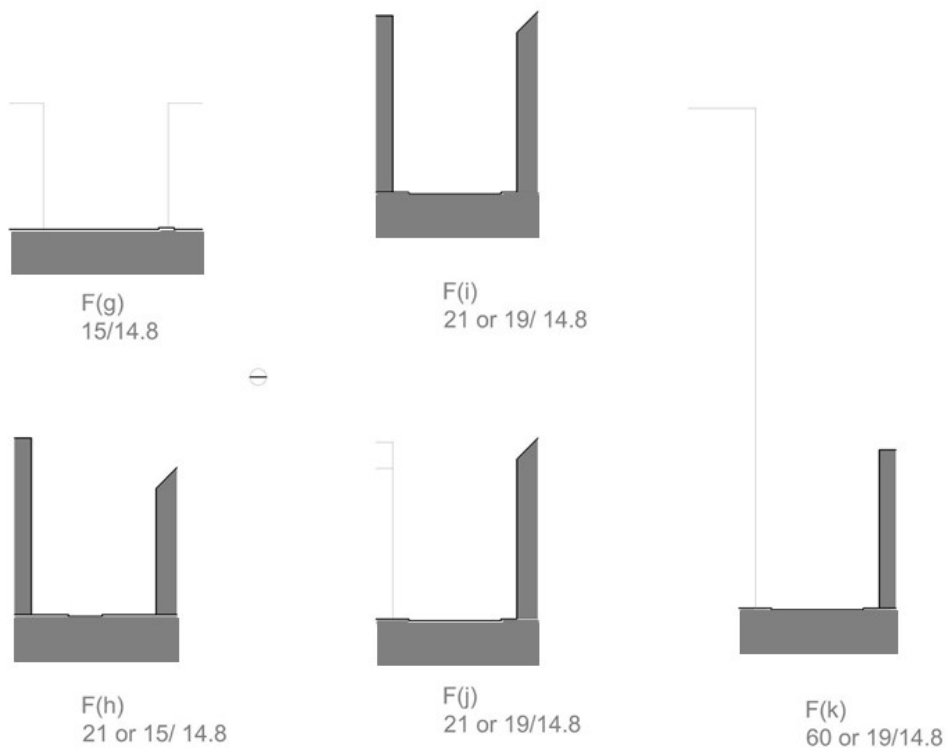


Fig. 4.27 Sections g (height to width ratio 1, h (height to width ratio 1.4, j (height to width ratio 1.41 ) and k (height to width ratio 1.41 )

Moselstrasse was built in 1863, named after the River Mosel, as an extension of the Windmühlstrasse. Just off the Niddastrasse, the parade of some of the city's famous licensed brothels on the Moselstrasse, which are brightly and colourfully lit at night, attract much of the attention and activity. There is no clear line identifying between passers-by, tourists, office workers, residents and brothel customers. In this section of Niddastrasse some of the main street-based interview locations were located; the Chinese Conference Hotel, The *Loewe von Juda Gemeinde*, The Lion of Juda Church, in the same building at Niddastrasse 49 as the City's *Café Fix* facility – the services and administration of the Drug Outreach Service of the City of Frankfurt. Opposite is the Mian noodle restaurant at Niddastrasse 52. While the south side is largely closed, the active facades include the entrance to the drug support and injecting room facilities, the entrance and lobby of the Chinese Conference Hotel, and some small gaming / gambling venues called *casinos* or *spielcasinos*. The urban block of the

Niddastrasse between Moselstrasse and Karlzplatz is the liveliest link of this part of the Niddastrasse in terms of street activity at all hours, and has a number of the main features that were picked up in the interviews, including the landmarks.



Fig 4.28 'Elbestrasse', photograph by Ulrich Mattner (2011, p 41)



Fig 4.29 Google Streetview image (c.2008) of Niddastrasse 49, site of one of the interviews (Google 2013)

### Second Section: Karlsplatz and Niddasack

Karlsplatz is drawn in the 1889 city plan (Schomann 1988 p 78) but despite its size has become dismissed as a *verkehrsinsel* or traffic island over time. The city urban planners and urban designers in Frankfurt see the potential for making the square more attractive and reinstating its function as an urban square (F17). There is currently activity in the area, partly from restaurant tables placed on the square with permission for the Department of *Erschliessung* (pavement uses), pedestrian activity associated largely with the Café Fix

substance consuming facilities, and some from a cycle path. This would be the basis for improvements detailed in the Discussion of Findings chapter below.

The Karlsplatz, with its landmark ("defaced" Gottwals 2012) utilitarian electrical transformer station, has been the focus of an urban design study and scheme since 2009 mentioned in one of the early pilot interviews with the head of planning department of the area.

### **Street and Buildings**

Architecture and environment: The architectural forms of the area are diverse, the façades and street alignments a little more heterogeneous in the Niddastrasse than those in the parallel triplet of more scenic boulevards, Taunusstrasse, Kaiserstrasse and Münchenertrasse.

As outlined in the planning history, the eastern end of Niddastrasse begins by the Taunusanlage, the park ring around the old city. Building forms in this area have a taller 'business district' character, with corporate buildings of the eighties and nineties. There are some neoclassical style villas on Niddastrasse at numbers 1-3 (1937) number 16 (c. 1870), Villa Morgenstern 'Frankfurt Romanticism' (1988 p 196). Niddastrasse number 8 (1942) and Niddastrasse number 9 (1942), and Niddastrasse number 10-12 (1950/60, and Niddastrasse 12 (1942) as detailed in Schomann (1988 p 195). The street is very narrow at this point, the street is one directional with narrow footways. The villa at the corner is *Gründerzeit* – 'founder epoch' era, and the insurance building opposite is corporate 1980s style. The very austere ground level makes the area uncomfortable as there is no one there and little reason to be in this area, turning the street into an accessway for parking entrances.

The Elbestrasse is made up of *Gründerzeit* ('founder epoch' era, the equivalent of Victorian) style houses apparently, possibly hotel or boarding house scale, used as the brothels Crazy Sexy, Toll House (a pun), and Komm (likewise). The lighting and decoration transforms these buildings into a garish but amusing spectacle, referred to by some visitors and amateur photographers as 'dolls houses', with possibly unintentionally dark humour.

The middle of Niddastrasse east is the Karlsplatz and the site of the long awaited urban realm project (and a public toilet) mentioned in the previous section. The functionalist electrical transformer station enclosure on the traffic island would be transformed into a

multiple purpose municipal facility according to the outcomes of a competition (Gottwals 2012).

The Niddasack is made up mostly of mid-century modern, simple five storey modern blocks with simple ground level frontages. The pavements are more standard size at about 3 m (generous compared to the first section) There is also some parking which is not detrimental to the streetscape and is one of the street's main purposes.

The main types are Modern Skyscrapers and nineteenth century are what Schommann (1988) describes as historicism in contrast to modernism (1988 p7). Historicism includes Baroque and Wilhelminian or *Gründerzeit* (Founder Epoch) architectural styles.

In the last decade, the development of urban facilities seems to have been slower as the financial crisis has increasingly impacted on municipal funding. Following the 2007 global financial crisis there have been visible impacts. The Occupy movement in its variants in Occupy Frankfurt as in London have highlighted, among other things, evolving tensions about the use of the public realm in the banking and financial services business areas (Chomsky 2012, Schultz 2012).

On a pragmatic level, the post-2007 austerity in the region has had some impact by increasing the gap between between rich and poor, but also public realm project funding seems to have become scarcer.

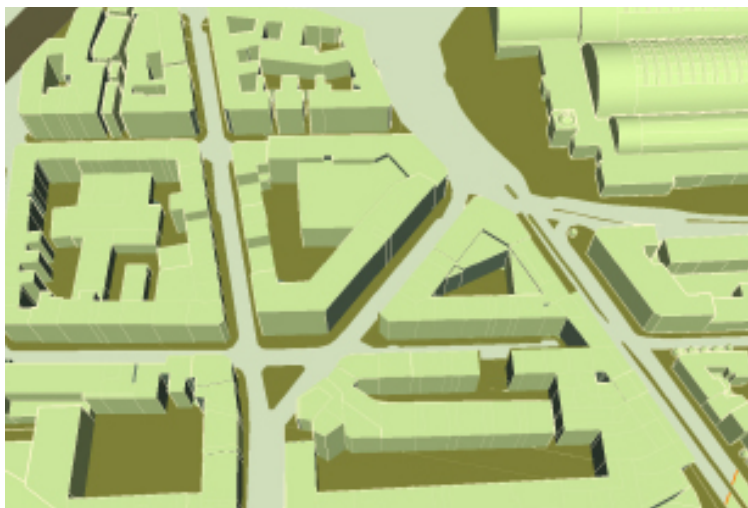


Figure 4.30 Model: aerial view of Niddastrasse showing Karlsplatz at left and the so-called Niddasack on the right

The nickname 'Niddasac' refers to the cul de sac portion of the Niddastrasse, between Karlsplatz and the Düsseldorfstrasse. The Niddasac has a pedestrian passageway through to the Düsseldorfstrasse and the tram stop in the centre. A series of nine small trees is shown in the next section to the right of Niddastrasse.

*Passage to the 'Strassenbahn Haltestelle' Tram Stop*

The *Passage*, linking the two parts of the Niddastrasse, is a simple arcade connecting the eastern part with the western part of the street. At a practical local level the walkway provides pedestrian and cycle permeability, connecting the 'Niddasac' to the Düsseldorfstrasse and tram station, another main distributor road which also leads to the railway station. The Passage is also named in some of the interviews as the '*piss passage*', referring to the urine smell of the arcade, which with its secluded and dimly lit character, adds to its unattractiveness for (except for those urinating) pedestrians at night.

The reports of public urination online suggests Frankfurt's local urban agencies in Bahnhofsviertel are equally aware of the problem and equally if not more disapproving of street urination compared to the London King's Cross equivalent agencies.

The part of Niddastrasse to the west to follow is not officially part of then *Stadtteilentwicklungskonzept*, categorised in the area called *Gallusviertel* alongside the flanks of the railway station.

Düsseldorfstrasse is a double carriageway, about 28 metres across, and has a dominant function as a Highway 44, but with a dedicated space for the tram station, and with safety-fenced tram lines. Traffic signals are used and there is a pedestrian crossing to the island tram station.<sup>96</sup>

**Third Section: Düsseldorfstrasse to the Hafenstrasse – four blocks**

The next section of Niddastrasse is the part from the Düsseldorfstrasse to the Ottostrasse to the west. This section of the Niddastrasse, running west from the tram station on Düsseldorfstrasse is cobblestone paved, with tram tracks, and very small corner radii. Apparently prioritising trams / streetcars, the street is not noticeably signposted on the corners or on buildings. The junction has a controlled pedestrian crossing near the station crossing and has a low planter on south side of the crossing and a post box and two metre

high Morris column (or *Litfasssäule*) opposite, for displaying advertising posters. This section of the street is lined with bollards and characterised by a small landscaping feature with some trees and a raised grass bed on the north side. It has fitness facilities, like a gym and a night club opposite on the south side.

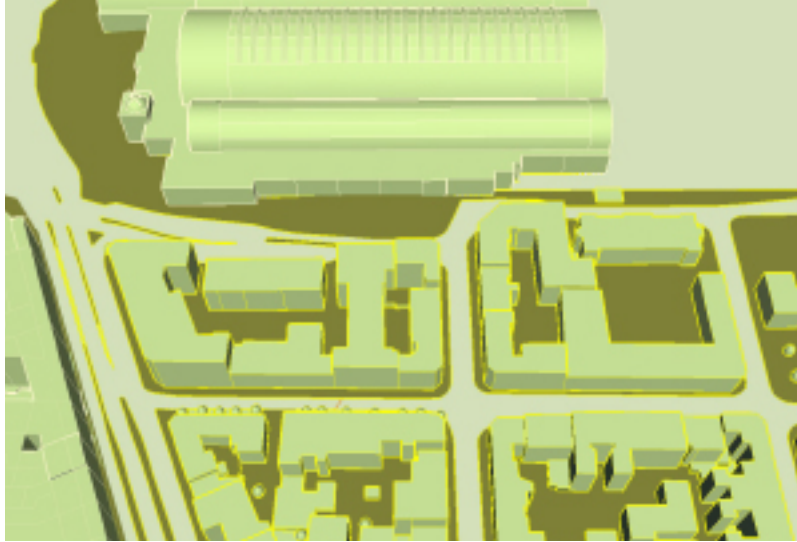


Figure 4.31 Model: Niddastrasse from Düsseldorferstrasse left, via Ottostrasse centre to Ludwigstrasse, at right.

This section of the Niddastrasse, between the Düsseldorferstrasse and the Ottostrasse, running west from the tram station on Düsseldorferstrasse, is characterised by a small landscaping feature with some trees and a raised grass bed. It has a fitness gym with bicycle stand parking on the north side, and a night club opposite on the south side. It was also noted in interviews as a place of activity related to the drug scene in that the planter bed is used for hiding people's drugs and where there was a report of street soliciting activity on the south side in front of the nightclub. It was a darker area, a low-lit part of the street, which has some tram tracks running into it as part of a tram turning section.

Ottostrasse (Schomann 1988 p 200) was planned 1886 built 1893, soon after the opening of the Hauptbahnhof in 1888. The section of Niddastrasse between Ottostrasse and Ludwigstrasse has several shops and hotels, including businesses which open onto the street. There is more ornate facades and active and the street has discreet entrances for a

more exclusive designer hotel, The Pure, but also with an informal basement kiosk, which was also a location of one of the interviews.

The section of Niddastrasse between Ludwigstrasse and Rudolfstrasse, with the Columbus Hotel, which was the location of one of the hotel reception interviews. Opposite is a large shopping centre known as the Saarkarree. There is some informal double parallel parking. This area is more closely associated with the railway station than the eastern part, and there is noticeable pavement parking and double parking, consistently noticed as uncharacteristically informal for Frankfurt from one of the first pilot visits to the area.



Figure 4.32 Streetview image of Niddastrasse , corner Ludwigstrasse (Google 2015)

The next block of Niddastrasse lies between Rudolfstrasse and Hafenstrasse.

There is a line of office buildings on the northern side of the street and quite a lot of pavement activity, but little of transparency in the street facades. On the south side, nearer the station, there is a large demolition site, now a car parking area with some remains of some small buildings, which is the site for the planned *Habsburgerkarree* residential complex scheduled according to advertising to be due to open in April 2014 (Mapolis 2014). This brings us to the Hafenstrasse, which terminates the Niddastrasse and which runs between the Messe on the north side, beyond the Mainzer Landstrasse and running down southwards, underneath the railway tracks, towards the *Hafen*, the *Westhafen* or West Harbour on the River Main, for which the Hafenstrasse is a distributor road. The



Niddastrasse continues only in an access road form to the west of Hafenstrasse, where it becomes Adam-Riese-Platz and Adam-Riesestrasse.

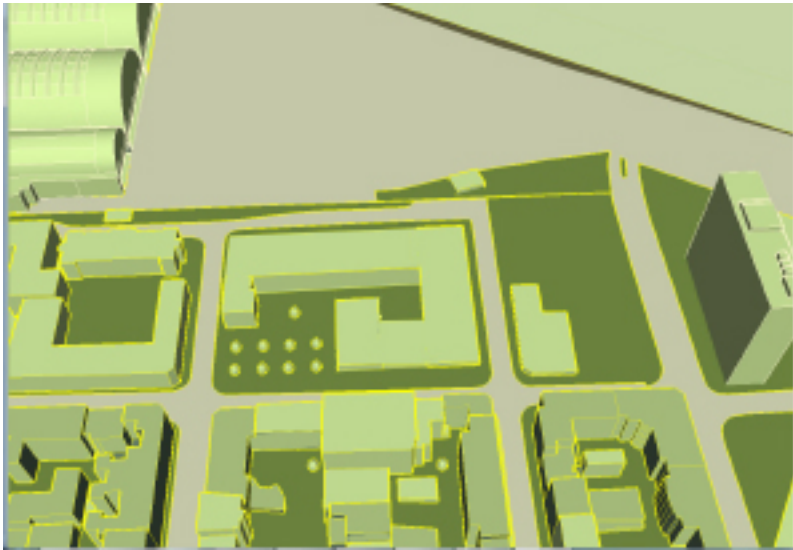


Figure 4.33 Model: Ludwigsstrasse intersecting the Niddastrasse at left, with an unnamed square on the south-west corner, then Rudolfstrasse and Hafenstrasse which goes into a road underpass under the railway lines.

As discussed in the methodology chapter, twenty interviews were conducted in Frankfurt over the research period 2009 – 2012. Pilot interviews were conducted on site in the first year with some initial contact with the Town Planning Department, which also led to follow up interviews.

### **Summary - Research and Conclusions**

In the case study we have considered the overall profile of Frankfurt and of the Bahnhofsviertel area, with some background on the siting of the central railway station and the case study street, Niddastrasse. In the detailed description, we have passed along the length of the Niddastrasse from the seedier, narrower end nearest the Gallusanlage in the 'banking quarter', passing the red-light area and a view of the front of the station at Karlsplatz, and then through the passage past the tram stop and alongside the railway station to the Hotel and Restaurant area which was formerly the postal and freight area at the back of the station.

With high-rise tower buildings dominating the far eastern end of Niddastrasse, its street level presence is very closed and lacking in associated activity beyond parking entrances.

This is the ill reputed illegal kerb crawling area. Then we have the next section which is characterised by some restaurants, casinos, small gaming shops and the Café Fix, the *shooting gallery* or *drug consumption room* 'Drogenkonsumraum'. The Karlsplatz, which forms a centre to the Niddastrasse as analysed and which is the site of a proposed scheme with an urban design consultation in progress. This Karlsplatz scheme has been running since 2010, already mooted in the area strategy (2007 ) and in interviews with a town planner. The more sedate western end of Niddastrasse, which has many hotels, has a less seedy reputation than the red light zone at the eastern end, but the western part is not officially included in the Bahnhofsviertel planning strategy (Frankfurt 2007). It is closer to the fair ground, and even better connected with the station alongside, being west of the Dusseldorfer Strasse and closer to the flanks of the actual railway station, the Bahnhof.

Niddastrasse makes a good comparative case study of street design because it possesses some of the critical elements of an intensively used mixed use street - a diversely used and occupied inner city street near a station. This makes it suitable for analysis of street design, balancing place and movement on the footways and carriageways and ambiguous public realm in development such as Karlplatz. Located in a position indirectly linked to the railway station and with a diverse range of residential commercial and entertainment activity, the Niddastrasse is an example of a mixed use street which has the potential to be part of a very walkable and liveable neighbourhood.

The key qualities of place are along with its vitality, a tense noir quality based on the generally tolerant co-existence of visitors, substance misusers, business people and local tenants and residents, which although controversial, is part of the gritty quality of the inner city area. Transport accessibility levels in the area are extremely high, with local national and international transport all very near and accessible. This is considered an exemplary ethnically and linguistically diverse area in a city with great cultural diversity as reflected in the recent report of the government's Office for Multicultural Affairs, the *Frankfurter Integrations- und Diversitätsbericht 2011-14* (Frankfurt 2015)

Niddastrasse also spans two development areas, Bahnhofsviertel and Gallusviertel, accentuating the artificial division of the street where it is bisected at the tram stop *Platz der Republik* on the Dusseldorferstrasse directly adjacent to the walkway passage connecting

Niddastrasse. The two sections have developed different characters, the eastern one more influenced by red light and entertainment uses, the western one a slightly quieter hotel and office area more directly accessible from the railway station. Reading the Niddastrasse as a continuous street is not significantly relevant for motorists and it is more practical and potentially useful for cyclists and pedestrians passing along parallel to the flank of the railway station and issues of an inner city street in the railway station area.

The emphasis of urban design development in the past decade seems to have been the frontal, more prominent eastern Bahnhofsviertel area. The existence of clear strategies for the area from *Drogenszene* (drug scene) to housing, traffic circulation and public realm are an advantage of the well-organised local planning system supported by the *Stadtteilbüro* – the district office with its in-house planner on site in the area. Although this function is outsourced and staffed privately to an extent, it is not a function of a particular commercial developer, so it appeals to a wider section of the diverse community in the ‘red light’ entertainment area, a variation on the role of a District Manager as found in Frankfurt’s established residential neighbourhood of Hoechst. The European INTERREG (European Fund for Regional Development) funded district office in Hoechst has a ‘District Manager’ with a role to offer real estate consultancy services to the building owners and residents, and also serves a junction function, linking relevant stakeholder groups (INTERREG 2011). The City of Frankfurt’s *Bahnhofsviertel Stadtteilbüro* for the railway station quarter reflects its position in a grittier area, performing functions as an inner city advocacy bureau, with many complex social issues present in the area. The *Bahnhofsviertel Stadtteilbüro* is a more socially-oriented advisory point which although it promotes creative industries, multiculturalism and creative culture along with inner city living, it sets out to critically engage with social issues of a red-light district, evening entertainment area, transport hub area and narcotics user tolerance zone (Stadt Frankfurt 2014).

The next chapter deals with the second case study, which was for the researcher closer to ‘home’.

# London

5

case study

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

## Essential Features

The urban context for the London case study is greater London, at the centre of the south east of England. Greater London has a resident population of 8.42 million (TfL 2013) but a quarter of journeys in London are by non-resident visitors (ibid p.2).

King's Cross Station Square is visited by 140 000 people per day, according to its planners (RIBA 2015)

The railway station at King's Cross (built 1852) has been part of King's Cross St Pancras International since 2007

Street: Caledonian Road (Section south of Regent's Canal)

length of street studied: 1970 feet or 600 metres [Fft 3700 feet or 1130 metres]

property addresses (street numbers 1-125 / maps appendix) 104 buildings mostly 2 – 3 storeys deprivation levels (lowest 40% most deprived overall) - vacancy rate approximate 40% (derelict landmark buildings; 2)

Pedestrian traffic volume sample counts 60/hour midnight weekday (0001 Wednesday 16 June 2010) 800/hour morning peak (0800 Tuesday 8 June 2010) see pedestrian counts below on page 169

### 1.Introduction

This second case study chapter introduces the study area of Caledonian Road King's Cross, London. To illustrate the comparative form of case study analysis, the Frankfurt case study and the London case study are presented in the same format. The aims of this chapter are to first introduce London and Caledonian Road King's Cross, setting out the first historical context of this inner city street in London, and its spatial formal and programmatic qualities. This chapter analyses the existing design of the case study street in the international station quarter of London. The case study provides background on the architecture and policy landscape and investigates how the street currently works. As a basis for the inquiry into improving the urban design quality of liveability of the street, the chapter reviews Caledonian Road, King's Cross in detail and examines the tensions and policies which have informed the current situation.

## 1.1 Research Question

The main research question applied to the case study is “How can streets be designed to meet diverse user requirements?” A sub-question was to investigate and to understand the diversity of functions that streets facilitate in their context.

In the context of how streets are currently designed in the case study area, the research investigated how street design processes may be improved. The research investigated how day and night activities and functions and cultures of streets are supported, with respect to both the quotidian day to day functions and also the aberrant or deviant night time activities – the noir culture of the street. The research asks, “how do these qualities make the railway station area distinctive?”, “How are movement and place balanced, in terms of the roles of diverse occupants, whether purposefully resting, moving or wandering?, given the differences of weight, power, and often the domination of motor vehicles, ?”, “How does user participation play a role in street design and changing streets in the case study context?”

Streets have certain special qualities in the station area. There is an evening entertainment character to the urbanism here which is rather uncontrolled and not curated. Unlike the neighbouring centres, Angel Islington and Camden Town, there is no Purple Flag scheme (a business improvement group) to enable the evening entertainment businesses to coordinate support for the evening economy. The area has a 24 hour character mainly associated with the station, led by the fast food outlets and off licence convenience shops near the station square, helping cater to the hotel and hostel guests in the area, and those using the station complex. Although it is not officially a red light area, the King’s Cross neighbourhood has a noir quality, and has had a reputation as a red light area at least since World War 2.

## 1.2 Location

The southernmost part of Caledonian Road between the canal and Pentonville Road had a different quality to the northern part and was a key part of a proposal to remove the traffic gyratory next to the station, as part of a wider set of campaigns to transform the street from

what is predominantly a motorised movement system to a place. In the London ring-road planning era of the sixties, influenced by *Traffic in Towns* (Buchanan 1962), a motoring one-way system was introduced in Caledonian Road between Wharfdale Road and Pentonville Road. In the early twenty-first century, residents' groups have increasingly argued for removal of traffic gyratories to restore place quality. In Caledonian Road, the potential for greater cycling and walking safety and permeability and more liveable mixed use streets were a pretext for changes to the gyratory system as a form of street improvement. The link between Caledonia Street and Wharfdale Road was finally returned to two way operation in 2014. Many residents are unhappy with the congestion caused in the current period as motorists adjust to the slower street (Talbot 2015).

On first impression, the built environment in this street appeared less degraded than many other parts of London, especially outer London and sprawling outer London high streets where the 2011 riots broke out (Harvey 2013). However, as a less prominent but equally important part of an international gateway area and London hub it has potential to be more distinctive. It is not only the buildings and physical environment which make the place, it is the ways in which they are occupied by people.



Fig 5.1. Map: London and Frankfurt in Europe – Inset: World with UK and Germany shaded

**London – Frankfurt - 477 miles (768 km)**

automobile - A3 - minimum 8 hrs 28 minutes

rail - 5 hours 34 minutes (dependent on departure times)

air - 1 hr 25 mins direct flight plus airport transfer times and check-in times

**London - Paris - 288 miles (463 km)**

automobile - A4 - minimum 5 hrs 10 minutes

rail - 2 hours 27 minutes (Eurostar)

air - 1 hr 10 mins direct flight plus airport transfer times and check-in times

**Paris - Frankfurt - 572km (355 miles)**

automobile - A4 - minimum 5 hrs 10 minutes

rail - 3 hours 52 minutes (ICE)

air - 1 hr 15 mins direct flight plus airport transfer times and check-in times



<p><b>Frankfurt - Berlin</b> - 551 km (342 miles)</p> <p>automobile - A4 / A9 - minimum 4 hrs 50 minutes</p> <p>rail - 4 hours 18 minutes (ICE)</p> <p>air - 1 hr 10 mins direct flight plus airport transfer times and check-in times</p>
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Fig. 5.2 Table of European intercity connections between four key urban centres (Information sourced by the author from various travel planning websites).

### Historical evolution of the case study area

*Ackroyd's London: the Biography* describes the city poetically and cryptically; "London has always been a vast ocean in which survival is not certain". He describes starfish or sea urchins fossilised in the stone plinth of a statue at Charing Cross (Ackroyd 2000 p 1). The main features of London's ancient human history range from an unverified legend of pre-Roman Celtic settlement called *Caer Ludain* in the pseudo-history of Geoffrey of Monmouth c1136 (Parry and Caldwell 1959 p) to the very well documented planned Roman city rebuilt after 60AD (Museum of London 2011). After many invasions, indigenous tribes in the Thames area had initially tolerated a small Roman occupation. *Londinium* was a military camp when Romans invaded the area in 43AD, and it became a civilian town by about 50AD. That civilian town was destroyed in 60AD. The Roman Emperor Nero had reneged on an agreement on the death of the local tribal King, late husband of tribal Queen Boudica. He had also had Boudica's daughters raped. Queen Boudica attacked with an army of warriors from East Anglian Iceni and Essex Triovantes tribes (ibid).

A planned Roman city was built on the site where the City of London is now, and grew rapidly to become the capital of Roman Britain in the 2nd century. With a population of 60 000 it had major public buildings - temples, bath houses, an amphitheatre and the largest Basilica north of the Alps. The city slowly declined. However, London Wall was built by about 225AD and almost 2miles long and over 8 feet thick, defined the city edge for 1600 years. The Roman occupation ended in 410AD and the city went into decline by the end of the ninth century.

London became Anglo-Saxon through the middle ages, although moving to a market nearer Aldwych the old village and following Danish occupations and Viking occupations, Edward the Confessor re-established English rule and established Westminster Abbey in 1042. In 1066, William the Bastard and the Normans invaded and occupied London, and William was

crowned King at Westminster. The Norman period of London was followed by Tudor (1486-1603) and Stuart (1603-1714) periods, and in the seventeenth century the city grew very overcrowded.

After many outbreaks of disease in the congested conditions over the centuries, the Great Plague in 1665-1666 decimated the population by about a fifth. The Great Fire followed in 1667, and razed 60% of the city's buildings including 87 Parish churches, 44 Livery Halls and the Royal Exchange. Sir Christopher Wren proposed within days of the fire to rebuild to a new plan many public squares and piazzas and with straight streets of with 30 feet, 60 feet or 90 feet wide. The streets and public realm plan came to nothing, but Wren rebuilt the iconic St Pauls cathedral and many of the churches. Many middle class residents moved westward to new developments towards Westminster, including St. James' and Piccadilly.

In the eighteenth century there were early signs of an industrial revolution. The coffee-house scene and the developing Fleet Street news presses combined with improving urban literacy levels to influence social and literary life. America broke away from Britain and slaves were freed, but with petty and street crime increasing in London, expanding the empire and transporting convicts to colonies like Australia began to be considered more humane and profitable than executions (White 1889).

In the nineteenth century, railways transformed suburban expansion and allowed commuting on a scale never seen before, but the massive growth of the city exacerbated the class divide between wealthy suburban commuters and the inner city poor. Newly completed canals built to move coal around the country were then in competition with railways. Sewage was pumped into the Thames until the Great Stink of 1858. Railway stations along the New Road now Euston Road were the transport gateway to London. East and west parts of growing London met along the Fleet River and the old Battle Bridge over the river became King's Cross. Deep below, the Fleet River still runs there from Hampstead Heath and Highgate to flow into the River Thames near Blackfriars; now it is only seen by a few adventurous urban explorers.



Fig 5.3. Fleet River by *Jon Doe* (nd c.2010)

The northern periphery of the 'old' city was known as the New Road, now Euston Road, the A501 which in the post-war Abercrombie plans formed part of the inner London Ring Road, along which the railway stations King's Cross, St Pancras, Euston, and Baker Street are arranged, and themselves connected by the underground railway the Metropolitan Line.

King's Cross Road follows the Fleet River to Farringdon and towards the Thames, and Gray's Inn Road leads from this same area to Gray's Inn, an early coaching inn and estate, and the legal and court district beside the Temple, one of London's earliest riverside worship sites.

Previously known as Battle Bridge, King's Cross was once the site of Brill Farm, close to wells and springs like St Chad's Well and Clerkenwell, positioned alongside the Fleet as it ran down to the river Thames (Gavin Stamp in Hunter and Thorne, 1990). It was named after a statue of the King erected at the centre of a road turnpike, which gave the name for the railway station. The station then became a key urban transport node and it remains with adjoining St Pancras station as one of London's most significant nodes of surface transport and underground transport.

## Post War

As Bertolini predicted in *Cities on Rails* (1999), the redevelopment area in North London associated with the Channel Tunnel Rail Link provided a means of seeding and investing in significant urban regeneration in the part of London which incorporates St Pancras International, King's Cross Station and to some extent Euston Station which, with the other two stations, links London to the Midlands and the remainder of the UK rail network.



Fig. 5.4. King's Cross Square (photo by the author 26 Sep 2013)

King's Cross Square, originally due to be completed for the London 2012 Olympic Games, officially opened in 2013 and in March 2014 the *Giraffe* café opened in the pavilion on the square. Crash barrier bollards separate the square from the footway and bus stops and Euston Road has continuous pedestrian guardrail along it.



Fig. 5.5 King's Cross Square Photo - photo for RIBA Awards (Hufton Crow 2015)

In a special issue of the *Architectural Review* in 2007 on the art of urbanism, Sir Terry Farrell made the view that London that "place is of primary importance", a position which Mayors and city visionaries seem to have been unable to adopt even for a strategically important inner city transport hub like King's Cross. The case study dilemma is summed up by architecture critic Paul Finch's editorial on the art of urbanism: "the last fifty years saw the abandonment of place-making in favour of car traffic, comprehensive development, alienating office complexes and fortress housing estates – impermeable and essentially anti-urban. It doesn't have to be like that" (Finch 2007). The urban place in front of King's Cross Station, while a great improvement on the configuration after the war until the square opened, is still segregated by many barriers railings and signs from the public realm of Euston Road. As the photo shows, there is little or no opportunity for pedestrians to cross Euston Road from the station to access the rest of London.

### **Railway Station area – the international Station Quarter**

Originally the area was focussed on transferring goods and post as much as passengers, and much of the goods handling was performed on docks in the warehouses and on railway sidings in the railway lands. In early photographs of the station, passengers are shown transferring from railway station to taxis and parcels and post also being collected in carts or lorries. Today, arrivals at the stations are all passengers on foot, many with wheel-aboard luggage, some with bicycles for mixed-mode bicycle-railway journeys. Cycle parking on

platforms within the station has gradually been replaced by separate cycle parking off platforms, outside ticket lines. London cycle hire scheme bicycles are positioned away from the stations by the transport authorities and local authorities, apparently with the intention of reducing cycle-pedestrian conflict and congestion.

### **Spatial Formal and Programmatic Analysis**

The case study of King's Cross station area begins with a succinct summary of the spatial formal and programmatic qualities of the case study street. The section of Caledonian Road from the canal to Pentonville Road met the selection criteria outlined in the methodology chapter, around which the thesis research was framed. Caledonian Road is an inner city mixed-use street, and has an urbane 24-hour city character, in this way similar to Niddastrasse in Frankfurt. Similarities include the presence of a late night entertainment scene, an adult entertainment scene – although smaller and more discreet than that in Frankfurt, Caledonian Road also has a wide range of residential and commercial in a highly diverse mix because of its location close to a major local, regional and international transport hub.

The King's Cross railway station is an important landmark, as is St Pancras International Station alongside it, and these are connected to city-wide, national and international transport networks. Understatedly running alongside and originating before the railway stations is the waterway transport network in the form of the Regent's Canal. It has a picturesque and alternative transport function now in the twenty-first century as a greenway and slow travel route. The Regent's Canal behind the two stations was originally constructed in the early 19<sup>th</sup> century as a cross-London industrial waterway link for freight barges to traverse north London between west and east. Although it pre-dates the railways in the industrial area, the siting was determined by architect John Nash's advice to the Regent after whom it is was named.

Caledonian Road is in central north-west London, alongside King's Cross Station and St Pancras International stations. The first part of Caledonian Road south of the Regent's Canal is a mixed use street which originally developed alongside the railway station with a range of uses from public houses and warehouses to offices and shops. The light industrial character of the warehouses has mostly transformed as the buildings were transformed for

publishing houses and offices. The upper or northern section of the study between the canal bridge Thornhill Bridge and Wharfdale Road in the centre – where the gyratory for the major inner north London ring road intersects – is still dominated by three-story Victorian houses which previously faced All Saints church, the parish church for the area. The latter was replaced in the 1970s by a purpose built cash handling warehouse, probably the most remarkably and conspicuously out-of-context building in the street. The Canal Pub and housing opposite and the canal bridge are three to four storey, and most of the other buildings are lower. From Wharfdale Road at the centre of the study street section, the street is lined on both sides by three- and four-storey Victorian Houses.

Caledonian Road (south of the Regent's Canal) is a secondary high street within the station quarter area, rather than a side street or cross street, but it is adjoined by major roads or streets at two points; once near the centre, where it connects with the road gyratory system, and at the inner city end where the inner London ring road crosses, the A501 Pentonville Road. The case study street as a linear urban space and as a set of occupations also exhibits a complex layering of uses, it is relatively 'motor vehicle-heavy' in the sense of late 20th century 'automobile-centric' areas near transport interchanges, and it forms a minor urban centre as a component part a (sub-) town centre.

## Spatial

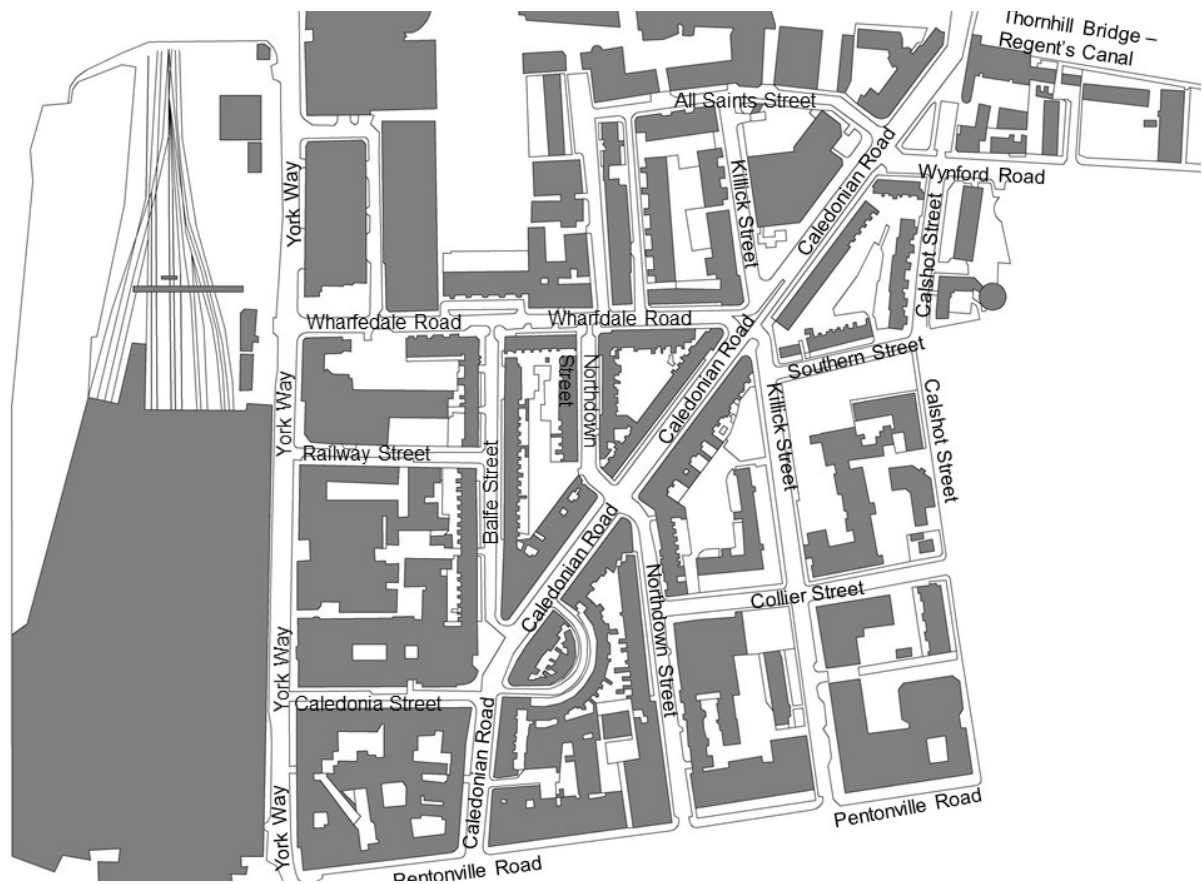


Fig. 5.6 Figure – Ground drawing

The figure - ground drawing shows the density of Caledonian Road buildings filling the street frontage, although there is some pedestrian access into courtyards at Caledonia Street and Balfe Street. The station appears at the left as a large impenetrable block. There was once a pedestrian and cycle bridge across the tracks in line with Wharfedale Road but this was removed when the station was refurbished and agreement to its replacement overturned (Talbot 2013).

There is secret gated access to the green between houses behind Northdown and Balfe Streets. There is no westward access across Kings Cross Station (right) except for the front and the bridge at the top / north.



## Formal - Location and Movement



Fig. 5.7 base plan indicating the study area of Caledonian Road south of Regents Canal, the unbuilt area running east west across the top of the plan.

### Traffic Gyratory Movements

One-way road traffic systems have been in place in King's Cross since the 1960s, and mean that the main traffic directions towards King's Cross have been Caledonian Road and Gray's Inn Road, while Outbound has been predominantly York Way, Pentonville Road (except buses) and King's Cross Road. The reinstatement of two way traffic on the majority of Caledonian Road in December 2014 has changed the gyratory but has not been well received by local residents (Talbot 2014).

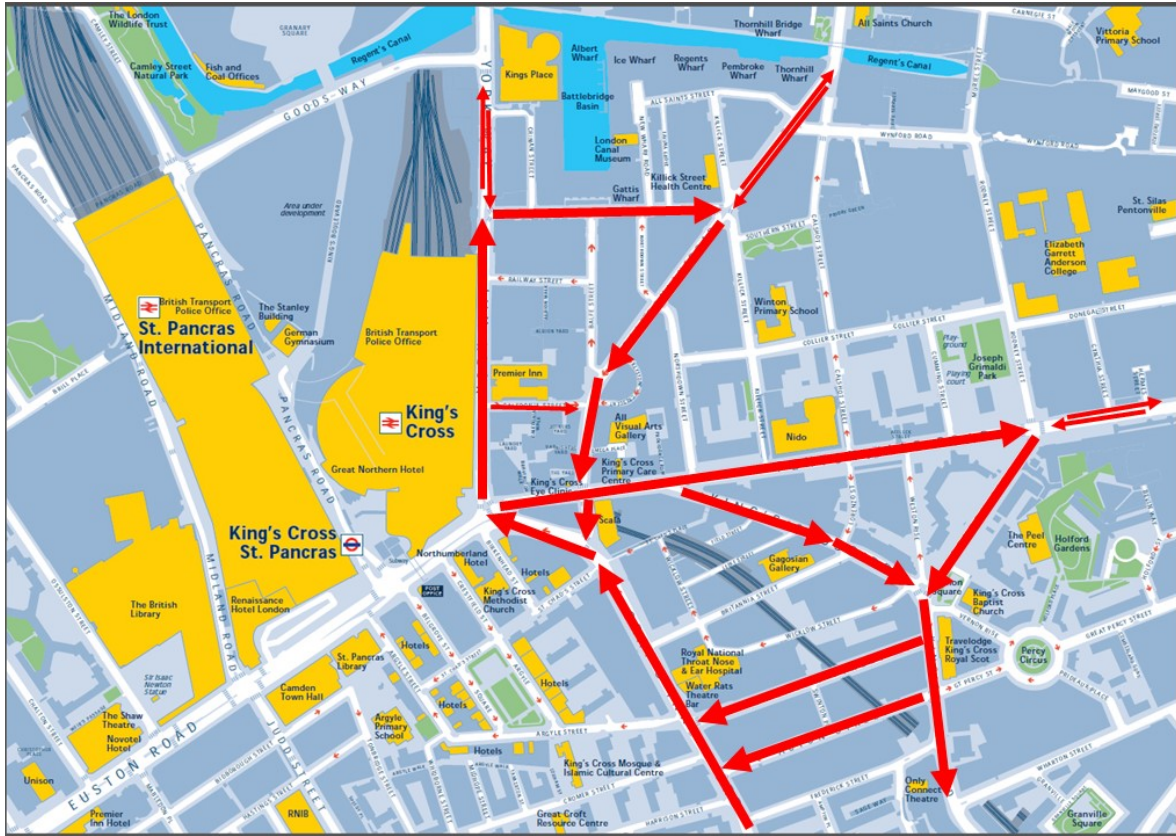


Fig 5.8 Gyratory movements before December 2014

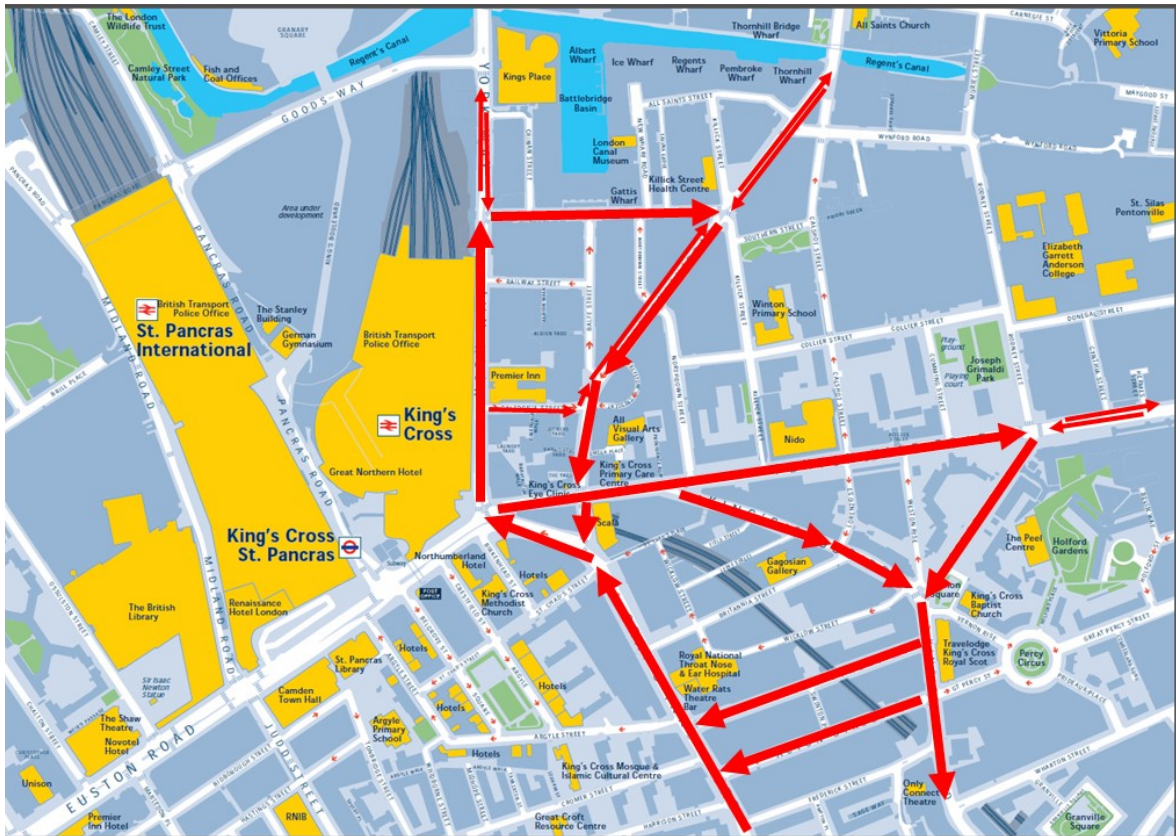


Fig 5.9 Gyratory movements after December 2014

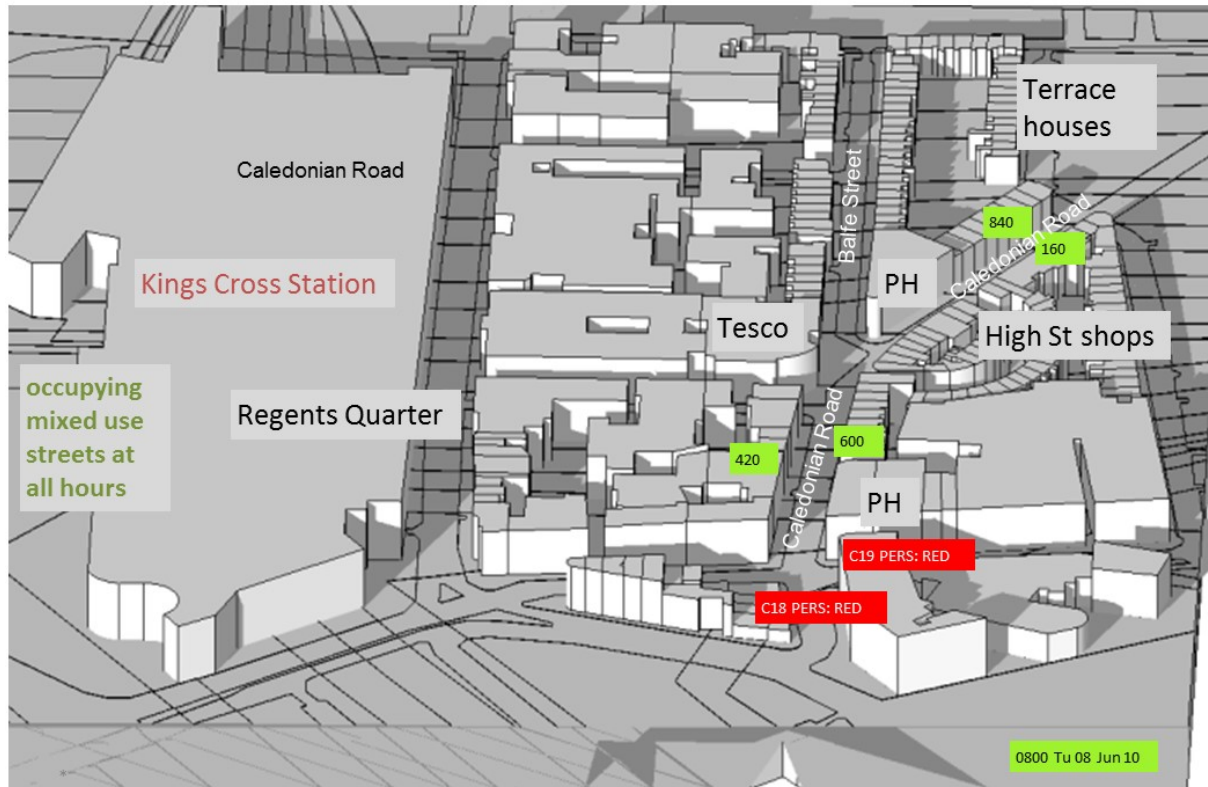


Fig 5.10. Pedestrian Counts on 8 June 2010 (diagram by the author)



Fig 5.11. Pedestrian Counts on 16 June (2010)

Two diagrams above for day and night in summer indicating footway user volumes per hour between 40 (midnight) and 840 persons (morning peak).

The pedestrian counts in summer 2010 combined with pilot studies undertaken as part of a workshop (Green Sky Thinking 2011) over a 24 hour period of observation showed the great range of pedestrian activity and street uses in the case study street. During investigations in the latter workshop, the Vaultex Cash handling facility was observed at night in 24 hour operation, as the reflective film-coated windows internally illuminated allowed an insight from the street. The vegan shop and the ABCAT cinema club were inspected by workshop participants and the ambiguous uses of some of the shopfronts was noted. In one example the door sign indicated the opening hours but there was no indication of the nature of the business from the street facade.

Vehicle movements in this link were studied by engineers at the local authority, London Borough of Islington, as part of the proposal to return the two-way working of this part of

Caledonian Road in anticipation of a larger gyratory removal scheme planned by Transport for London (CallySouth 2015).

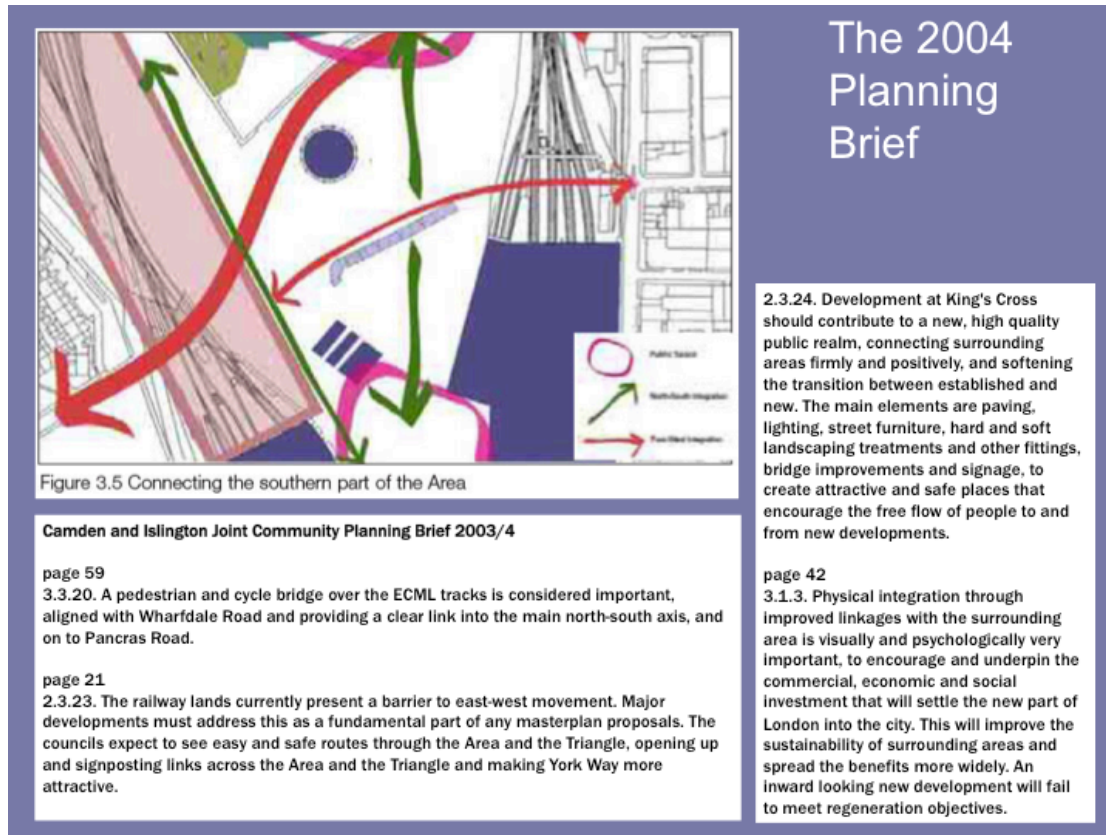


Fig. 5.12 King's Cross 2004 Planning Brief

At a functional level, the Caledonian Road section south of the canal in King's Cross serves its purpose adequately, allowing for traffic and public transport to pass through. However, its viability as a place has slowly changed, with decline of high street trade and vacancy of the commercial frontages, and there was some decline of the ambiance in the street, coupled with four lanes one way of dominant through traffic. The 2004 Planning Brief written in consultation with local authorities Camden and Islington stated that "integration through improved linkages with the surrounding area is very important" however these east-west linkages have later been compromised in the development of the stations, which are more monolithic and impermeable than anticipated.

It is argued that the street is severed from much of the activity generated by the complex of King's Cross and St Pancras International stations, which has been turned inward towards King's Boulevard between the two stations.



Fig 5.13 Land Use basement level

Building uses, colour coding commercial uses, shops, residential and office entertainment.

In the northern part of this study area, between Northdown Street and Thornhill Bridge, there is more predominant residential use, with some commercial premises and the Vaultex cash-handling facility on the former All Saints Church Site, 200 Caledonian Road which is not

documented anywhere in Islington’s public documents, apparently for security reasons.

Basements appear to be especially well used at the south end of the street.



Fig 5.14 Land Use Ground level

The buildings at street level are diversely occupied, especially at the corner of Northdown Street where a Mosque / Islamic centre is sited between an adult cinema and a gay cinema / sauna, see Fig. 5.14 below.



Fig 5.15 Land Use upper levels Caledonian Rd London Upper floor

A story in Vice magazine describes the decline of the *noir* adult cinema scene in London

“King’s Cross used to be a place you drove through, and was well known for vice. That is no longer the case,’ says (Councillor Paul) Convery. He’s right; the area is now defined more by shiny buildings, (the)Eurostar champagne bar and the expensive St Pancras Hotel than dealers and pimps. That’s not a bad thing, of course, but there’s a vocal minority arguing that the true heart of the capital is being lost among all the prestigious new developments.” (Lucas, 2014, p.1)





Fig 5.16. Section of building uses and detail from photograph showing corner mosque (centre)

The diagram shows the adjacency of the ABCAT Cine Club, coded pink at left, with residential use above and a Mosque at right.

The location of the street is in the immediate vicinity of the railway station, which is significant for its accessibility yet its place in the movement hierarchy, and its history of movement is dominated by motorised movement.



## **Programmatic**

### *Planning Arrangements*

The structure of planning arrangements in London is more specific to the borough and the city than the equivalent arrangements in Germany's federalised system. At the time of the research, the introduction of the Localism Act (2011) gave local activists the impression that involvement in planning at a local placemaking level would be made more available to neighbourhood groups forming under the guidelines of the new act. In King's Cross, the nascent neighbourhood forum had more difficulty forming than expected because it was rebutted by both Camden and Islington borough councils, and the border of these two very large inner London Boroughs runs through the centre of the King's Cross neighbourhood, along the eastern side of King's Cross station, a short distance from Caledonian Road.

Local community groups had worked as consultees on local planning documents over several years after the upheaval associated with the railway station redevelopment, however with the movement towards localism the local authorities held onto the power over local places through the King's Cross 'place shaping' document, developed through Camden between 2009 and 2012. The resultant Place Plan (2012) was later shared between Camden and Islington, but remains a non-statutory planning document.

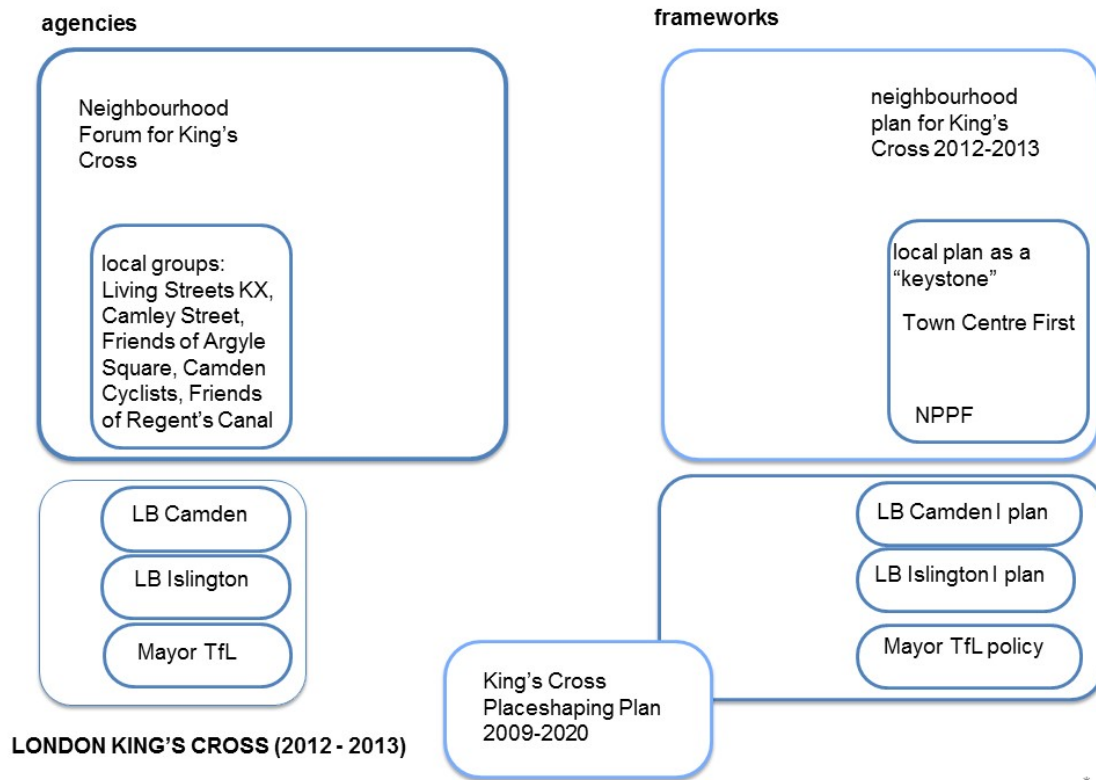


Fig 5.15 Frameworks and Agencies in King's Cross 2013

At the time of writing, the existence of the grass-roots neighbourhood forum is no longer secured, as its validity is sanctioned by both local borough councils. At the same time, the local authorities are understaffed and increasingly unable to work strategically on the public realm or highway improvements. The mayor's transport authority prioritises London-wide transport initiatives over local initiatives for which it has no remit, and local voluntary groups are struggling to maintain a profile in the face of activist fatigue. The author was involved in several consultation exercises over several years through Living Streets Kings Cross, and in view of declining funding at local authority level, there has been a loss of faith in the value of participation which has been at a "tokenistic" level in terms of Arnstein's ladder of participation which was shown in chapter 1 (Arnstein 1969).

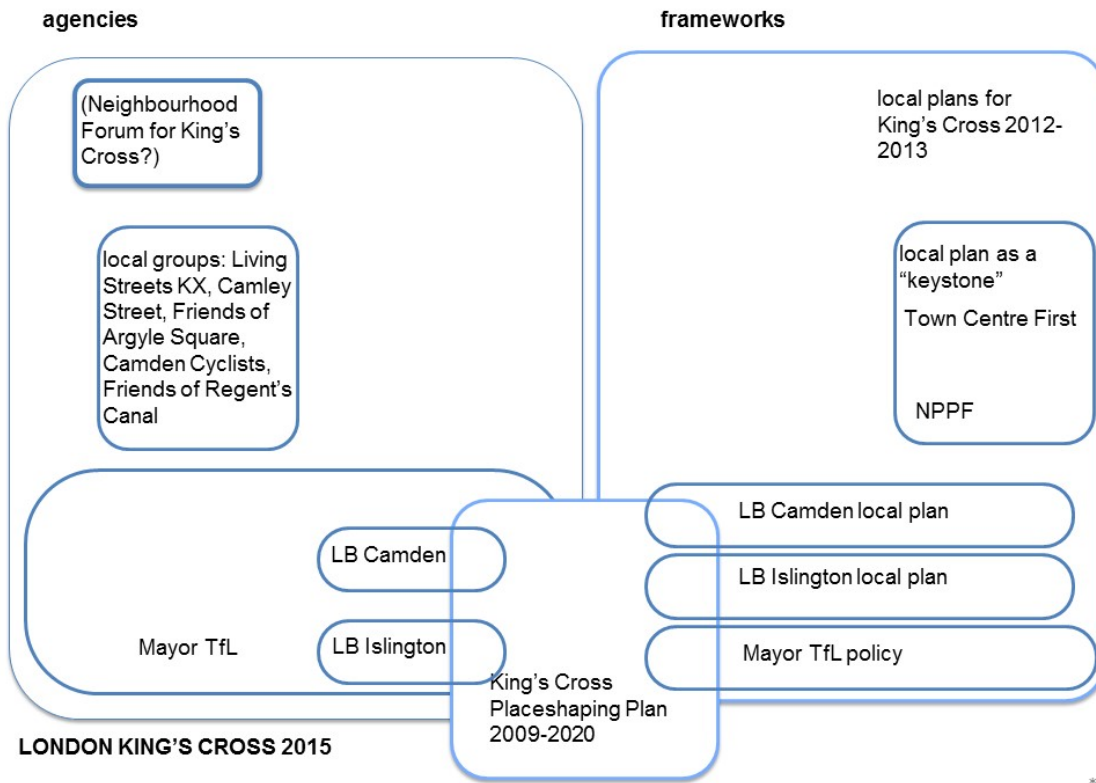


Fig 5.16 Frameworks and Agencies in King's Cross 2015

**Stakeholder mapping- London**

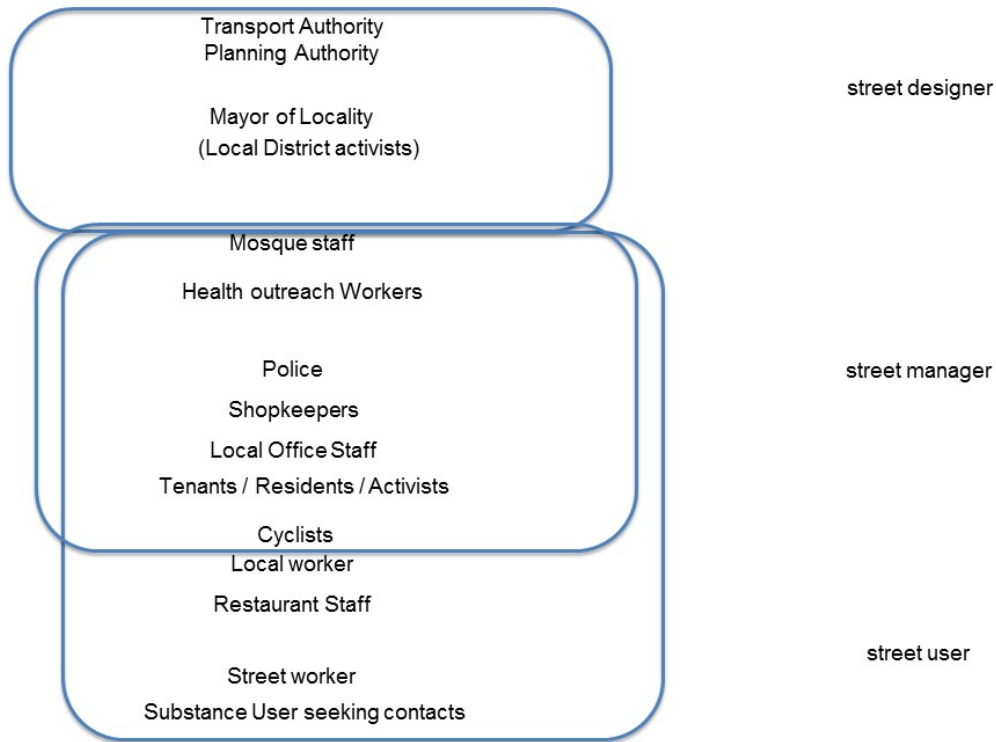


Fig. 5.17 Stakeholder Mapping

**Place Plans**

Stakeholders in place making in King’s Cross have a traditional hierarchy, from the authorities and government at the highest level, of Mayor and Transport authority. The Mayor, as chair of Transport for London and head of the Greater London Authority producing the London Plan have placed King’s Cross on lists of strategic development locations and with the completion of the station refurbishment and the station square, it appears to some at a strategic level that the area is now up-to-date. However the increased passenger flows to and from the network rail stations, the international station and the extensive underground station concourse means that the condition of the surrounding area is cast in a less positive light.

Following the end of the funding period of a Single Regeneration Budget for King’s Cross 1996-2003 (Edwards 2009), Camden the local authority on the station side of the borough boundary, began developing a place making strategy, the King’s Cross Place Plan, which currently exists in the form of the policy “King’s Cross, Shaping the Future: A Plan for the

Wider King's Cross Area" (Camden and Islington 2012). This document, developed since 2009, was officially shared with the neighbouring borough of Islington since 2012.

Caledonian Road is part of the railway station area, with The Flying Scotsman public house and bus stop X "Kings Cross Caledonian Road" in front of 10 Caledonian Road, being two landmarks suggesting the close proximity of the station, even though the station is neither visible nor seem visibly near.

The case study street, Caledonian Road is a mixed use high street. This street, although lying 'beyond' the inner ring road, because of its heavy pedestrian use and with a transport interchange function comparable to Oxford Circus, in terms of pedestrian numbers, is effectively an inner London street adjacent to zone 1 central London, the inner city zone also known as the Congestion Charging Zone. The new development at King's Boulevard, which is placed between the two refurbished railway stations, has been designed by developers to contain the '45000 passenger movements per day' (Kings Cross Central 2014). It is clearly intended as the exclusive shopping area within the semi-public King's Cross Central development area, keeping footfall west and north of the station and away from Caledonian Road. It has an important public realm function and therefore – like most public highways in built up areas used for local movement on foot or on bicycle – would be classified as a street with a public realm function, according to the *Manual for Streets 2* (2011).

### **Policy**

The area around King's Cross Station, having evolved from ancient Brill Farm and Battle Bridge on the Fleet River became a sooty place of dust heaps. With the smallpox hospital, the area had developed a noir industrial place quality with the dominance of the railway station and associated industry. This was reinforced in film and popular culture. With London's population expanding in Victorian times, King's Cross remained primarily as a dirty industrial area and goods handling district, and was not considered a place fit for healthy families. The railways had allowed the middle classes to commute from new suburbs outside the city smog and the 'great stink', to planned residential suburbs. Planning of the railway station area had already become pragmatic, focussed by default around transport and goods-handling rather being planned than as a civic urban space or gateway.

Regeneration of the King's Cross Station area in general was piecemeal even after the war, and although the modern nature of coal use and freight marshalling had changed, the 1943 County of London Plan showed the railway lands remaining as a "goods-handling area" (Forshaw and Abercrombie 1943, pp 28, 70, 120, Hunter and Horne 1990 p 33).

Physical planning policy relevant to King's Cross developed only after the second world war as the first comprehensive law on physical planning in the UK was only passed in 1947 (Bertolini 1998 p180). Transport and goods freight handling uses dominated in the area up to that time, as documented in Hunter and Thorne's *Change at King's Cross* (1990).

A campaign to save the Victorian-era St Pancras Hotel eventually succeeded and enhanced the post-war heritage image of the area. The Regent's Canal was declared a Conservation Area in 1974. In 1983 the other buildings along the canal were include in the conservation area. The international railway station plans for King's Cross were first mooted in 1987 and critique and resistance developed steadily, galvanising the local community (Hunter and Horne 1990 p128-9). Attention in the 1970s and 1980s was primarily focussed on the King's Cross station area south of Goods Way which is under construction at the time of writing.

The Greater London Council had taken an active interest in this area from 1977 until when it was abolished in 1986. The London Borough of Camden became the planning authority responsible for the area, and in response to a neighbourhood *Railway Lands Community Development Group* formed in 1987, arranged a set of meetings and consultations to draft a planning brief. In autumn of the same year, 31 people died in the King's Cross Fire, highlighting inadequate facilities. The House of Lords also decided King's Cross should be the location for the international terminal for the Channel Tunnel Rail Link (Hunter and Horne 1990 128-9).

During the second half of the twentieth century, 'Kings Cross railway lands' in Bertolini and Spit's *Cities on Rails* (1998) chronicles developments in the area relative to changing transport policy and up until the eve of the twenty first century. Angela Inglis' 2012 study *King's Cross a Sense of Place* picks up the history of Balfe Street and Regent's Quarter through the 1980s 1990s and 2000s.

There have been some plans, such as Better Streets 2009 and London Mayor's 100 Public Spaces, launched in 2002, (Mayor of London Architecture and Urbanism Unit 2002) which



suggested that King's Cross and Euston Road and King's Cross Station Square would be strategically important urban design places in London. However, these projects appear to have been shelved as a result of the change of mayor, change of government and change of management of Transport for London and the new strategic thinking that was behind this placing of King's Cross.

King's Cross redevelopment was built into Camden planning documents, including the King's Cross Opportunity Area Planning & Development Brief (2004), incorporated in the Borough's *Unitary Development Plan* (2006) and its *Local Development Framework* (2010), as well as its *Housing Strategy, Site Allocations* document and its *Conservation Area* policies. It was reflected in the Transport Strategy and the Air quality action plan, as the King's Cross Central redevelopment (as it is now known). It survived several pitfalls and reincarnations through the decade and a half from 1998 to the present - from the Single Regeneration Budget for the area (with Islington) to several changes and mergers of developers through the early first decade of the century.

The *London Plan* (2004, 2008, 2011 p263) identified good intentions for the redeveloped King's Cross such as minimising car use (2011 p263), but does not have an improvement plan for the public realm for TfL Streets. The *Mayor's Great Spaces* (2009) eventually enhanced the quality of the refurbishment of King's Cross station square completed in 2013. The station owner Network Rail developed this as a semi-public realm which is clearly delineated from the streets around it and from the New Road the A501 which is yet to become a walkable Euston Boulevard as Sir Terry Farrell had once envisioned it (Building 2005).

In 2012, the King's Cross Place Shaping Plan was shared between Islington and Camden Boroughs, bringing together the existing work on policies for Kings Cross on the east of York Way in the Borough of Islington. One of the references to earlier work was the 2005 neighbourhood framework document Islington prepared, *Regenerating King's Cross*. It mapped the King's Cross regeneration area as far as Market Road in the north, about five times farther than the extent of the case study between the ring road and the canal.

Local user tensions around the emerging TfL 'gyratory strategy' (TfL 2015) have a history in the era where transport plans rode roughshod over local residential areas. The gyratory

strategy is the general plan to remove traffic gyratories – one-way systems – to restore livable town centres in London. Not yet out of local residents’ memories, it had been planned in the nineties to bring the Channel Tunnel Rail Link into the centre of this part of King’s Cross at the south end of Caledonian Road, with great disruption to social housing and to historic building fabric in this innermost corner of the borough of Islington.

TfL’s gyratory strategy – a general commitment of the Mayor’s Transport Authority to consider removing gyratories – has been constantly postponed since the global financial crisis in 2008. A political stalemate has occurred, partly because the Mayor of London took over the custodianship of inner city high streets which are also mixed use or mixed priority streets.

Local people, pedestrian campaigners, cycling and other transport campaigners – the latter group tend to be less “local” – have all called for an improved environment, and a safer environment in which to move and live. The latter is such a broad and open ended aim that it has been met in two ways – the safety ‘crisis’ , especially following fatalities, has been addressed, understandably, by the engineering approach – through Junction Review. An environmental and design-oriented approach, being holistic and hard to pin down, has been avoided, and the problem of place-making has been shunted between numerous departments; environment, landscape, transport and streets departments. These departments have then turned to the transport and public realm authority, the Mayor of London’s TfL in regard to public transport ‘red routes’. These transport routes traditionally work in a London-wide way without addressing local public realm issues in the way urban designers view the schemes like Walworth Road or Exhibition Road. The latter had several large institutional stakeholders and also a very tenacious pair of councils backing the scheme (RBKC and Westminster together) and yet is not universally considered successful in terms of it being a walkable livable street (Moore, 2012, Bechtler et al 2010).

A local plan for the King’s Cross was developed in the form of a special interest area in the Site Allocations document for the 2010 Statutory Planning Document ‘Camden UDP’. The researcher was involved sporadically as a participant and consultee (as an individual and as a chair of a local group, Living Streets King’s Cross Local Group) in the development of the plan over the years 2008 – 2013.

King's Cross Central the property developer, and occupier of King's Cross as a brand (kingscross.co.uk) has developed the railway lands site and published exhibitions and books, arguably eclipsing independent photographic and creative literature like Inglis' *King's Cross a Sense of Place* (2013). The new King's Cross Boulevard is part of a private estate owned and managed by King's Cross Central Limited Partnership, which aims to make visitors feel "warmly welcome" (Kings Cross Central 2014). The street appears on the surface to be a public thoroughfare but is managed by King's Cross Central Limited Partnership.

The creative economy in the area has been stimulated by a new University on the Granary site, which is also a part of the King's Cross Central development. *Central St Martin's College* of the *University of the Arts London* (CSM) has become a major neighbour with magnetic power to attract activity. Other smaller creative enterprises outside the King's Cross Central site like Drink Shop and Do, King's Cross Tattoo, Graphic Supplies and cafes have benefitted from the business spin-off. Walks have also been inaugurated, as well as a Guardian App and a TV series on the '*Secret History of our Streets*' referring to the music history of the area from Bob Marley to the Pet Shop Boys. King's Cross has myriad creative enterprises such as *The Poor School*, *Invisible Dot*, *The Place*, *One KX*, *WORK Gallery and Paperwork Bookshop* Acton Street, *SSOV – Secret Society of Vegans* and *AFlorum* florists, all of which fall outside the railway lands King's Cross Central development.

### **How the area relates to the Caledonian Road**

The railway station complex in King's Cross is an important transport node and transport interchange for the three main stations of which it is comprised. The first station to be built enabled passengers to transfer between trains or from trains to other modes of transport, and in from the nineteenth century until after the war, goods and parcels were part of the equation. As the international station was completed and the obsolete goods transfer yards were redeveloped, the emphasis turned to passenger transfer, and passenger arrival and departure. In the post war era, this was a declining post-industrial area and was not considered as permeable walkable neighbourhood. Therefore impedance to pedestrian or cycle permeability across the neighbourhood was disregarded as almost all station users were passengers. The consideration of residents or street users based east of York Way needing to pass through the stations to the British Library or Euston Station was a low

priority compared to taxi and transport access to the stations and communications between the two stations.

The decision to build an additional platform into King's Cross Station alongside York Way was a strategically important one for the transport capacity issue in the station area, but the implication at street level of cutting off an established access point was a necessary compromise for the railways.

The segregation of the station platforms from the public realm has occurred in parallel over the last decade as the introduction of automated ticket barriers has effectively privatised the platforms, making them inaccessible to non-passengers. In some ways the separation of passengers and non-passengers parallels the now out-of-vogue methodology for studying NMUs – non motorised users and in the road's domain in the Design Manual for Roads and Bridges.

The public highway or road or street is often considered a public realm available to anyone, yet the terminology and procedure in DMRB Volume 5 Section 2 Part Section 46 Part 5 HD 42/05 suggests that the 'non-motorised road user' is a new concern in the process of safety engineering in 2005.

"The Disability Discrimination Act of 1995 was revised in 2005 to include a duty for highway authorities to provide reasonable access to the highway for disabled users. As a result this has led to the need for Mobility Audit." (David A Graham Associates 2015).

#### **4 Description of the site - Buildings**

The buildings in this area are mostly low rise, three, four or five storeys high, with a few exceptions around the periphery of the site. On the former Railway Lands, several new high rise office buildings are under construction. Recent construction near the case study street includes modern budget hotels Premier Inn on York Way and Caledonia Street, and a proposed Whitbread Hotel near Wharfedale Road (Perrin 2013). To the east of the study site at 200 Pentonville Road is a former 18 storey NatWest Bank building, which is now Nido Student accommodation and incorporates facilities including a (Starbucks) café, Italian restaurant in the concourse, and a 24 hour 'Anytime' fitness centre.

North of the case study site further up Caledonian Road is a high rise social housing block, and another key landmark is the King's Place entertainment and business complex with its distinctive auditoria and 24 hour Guardian newspaper journalists' hub. Some of the new buildings in Regent's Quarter are up to four or five storeys with elevators.

In the case of Caledonian Road King's Cross, there has been a very long-standing conflict in terms of management responsibility at pedestrian level between the transport authority and the local authority. Caledonian Road lies very close to the borough boundary between the borough of Islington and the borough of Camden. After the end of the Single Regeneration Budget, the latter has had primary responsibility for planning gain, which was entirely of benefit to the Camden side of the boundary. This makes the border zone between the two boroughs problematic, but this is also magnified by the intervention of TfL as the highway authority for the strategic route and bus route which includes Caledonian Road.

A proposal was published for consultation promoted in connection with Councillor Paul Convery in 2013, relating to changing the Caledonian Road from one-way to two way working (ICAG and KXE 2013). The two way operation was implemented in December 2014. Vocal protests have ensued from local residents who found traffic congestion initially increased (Talbot 2015).

## Detailed description



Fig. 5.20. Caledonian Road looking northward from Keystone Crescent

The perpendicular junction with Caledonia Street is at the left, Balfe Street is straight ahead with Public House / Bar *'Be At One'* in the centre of the image, and Tesco, the local shopping centre, is left of the three trees on Balfe Street.

The artist's impression of the station shown in Fig. 5.21 pre-dates the opening of the Northern Ticket Hall between the two railway stations, and the detailed design of King's Cross Station Square. The underground cutaway shows the London Underground lines (bottom left), the Metropolitan, Hammersmith and City, and Circle lines, then toward the centre of the picture, the Northern Line (centre) and the Fleet River in a pipe passing between the Northern Line and Piccadilly Lines, the Piccadilly Line and the Victoria Line to the right.



Fig. 5.21 Artists impression of King's Cross Station. Uncredited artist, on a sign in Keystone Crescent, possibly erected by Islington Borough Council.



Fig 5.22 Caledonian Road (east side) at the junction of Northdown Street.

According to an interview with local architect Peter Shaw (Inglis 2013), Caledonia Street at one stage was planned to be widened for the traffic gyratory connecting York Way northbound with Caledonian Road southbound, but according to Shaw, the proposal had fallen bureaucratically 'between stools'. The planned Caledonia Street road widening was variously thought to be a Camden highways project, a TfL highways project, or an Islington

highways project (Inglis 2012 p 121-124). Shaw explains that once all of the assumed responsible agencies had been exhausted, there was a great sense of relief that the street would be able to be designed as a walkable link which would be integrated in the Regent Square development plans (ibid).

This is also the corner of the small residential lane, accessed from Caledonian Road, which is called Keystone Crescent. This is a remarkable Victorian restoration development on a small *cul de sac* to the south east of Caledonian Road. The local authority sign claims it has the smallest radius of any crescent street in Europe.



Fig 5.23 Sign erected on the corner of Keystone Crescent and Caledonian Road



Balfe Street is the next corner on Caledonian Road beyond the Tesco. There is also a large, successful pub on the corner (*Be at One*) and a series of currently vacant shops and residential properties on the north side of Caledonian Road, between Balfe Street and Northdown Street. Within this parade, there is also a Pizza and former kebab shop. On the corner of Northdown Street and opposite is the Journey's King's Cross travellers' hostel and a series of real estate agents and convenience shops. There have been increasing vacancies in the street properties. With the apparent economic difficulties of maintaining viable high street shops, it appears other uses have been adopted and in a survey conducted for the Cities Methodologies workshop 2011, it was found that there were many ambiguous street front occupancies, with no indication of the uses of the shopfront properties. The domestic or commercial / office / shop nature could not be readily assessed by looking at the façade. One shopfront had curtains with a gentle light behind, and a sign on the door merely indicating open hours on Sunday afternoon only.



Fig 5.24 Numbers 1 – 39 Caledonian Road

The western side of the bottom of Caledonian Road from Pentonville Road, left, towards Caledonia Street – four storey glass offices at right.



Fig 5.25 On the left the square in front of Tesco and the four-storey offices.

The straight section of Caledonian Road leads from Be At One (centre, 33 Caledonian Rd) over four main urban blocks to Thornhill Bridge over the canal in the distance. The boarded up street property is earmarked for a large new development for the Institute of Physics (Perrin 2014).

Matchless Gifts, a charity shop, connected with the Hare Krishna movement, is located on the corner of Killick Street on the south side of Caledonian Road, at the junction with Wharfedale Road., has various facilities and is the location for the tricycles / pedicabs which deliver free food to a number of points, including one right in front of the railway station and at the UCL campus nearby. The tricycles distribute from the corner of Killick Street and Caledonian Road to York Way and SOAS campus in central London.

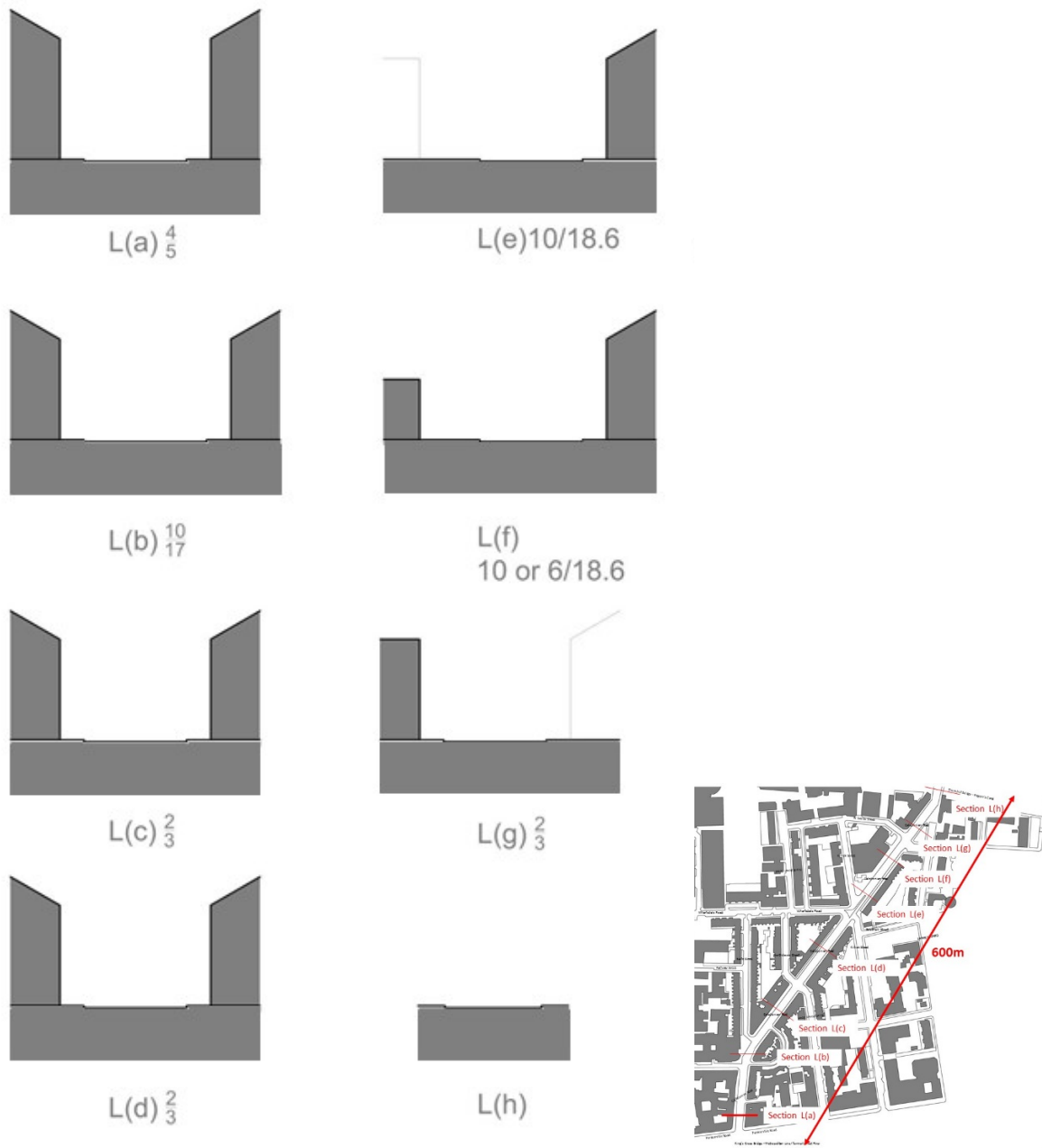


Fig. 5.26 Sections of Caledonian Road -see appendix 7.124 (plan inset)

Four Sections of Caledonian Road, height to width ratios of 0.8 at Section L(a), 0.58 at Section L(b), 0.67 at Section L(c), and 0.67 at Section L(d).

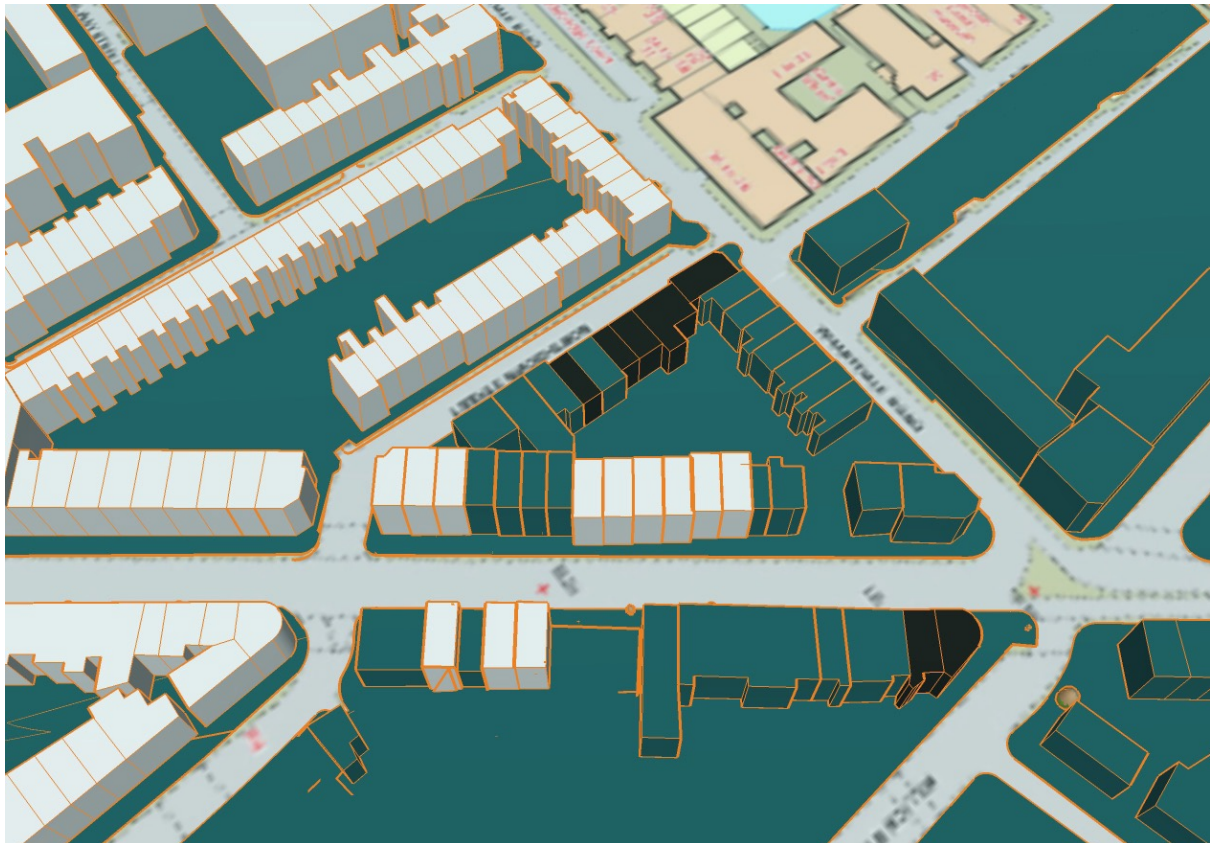


Fig 5.27 The Block between Northdowne and Wharfedale (far side) 45-59 and 61 Caledonian Road to the former Talbot Arms public house at 97 Caledonian Road.

Opposite The Driver. Pictured on the near side to Northdowne street corner (and the Charles 1st public house second from the corner. A row of flats over shops from Northdown to Killick Street 70-104 Caledonian Road.

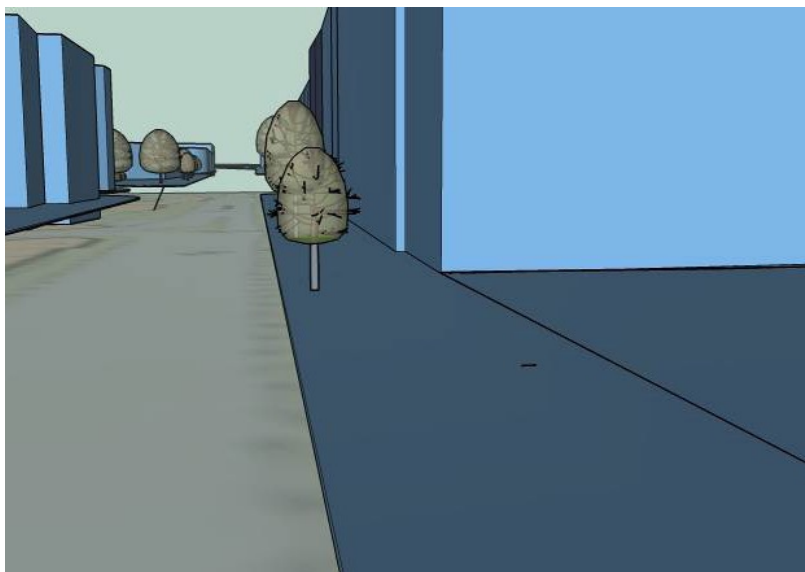


Fig 5.28 Eye level view 3 looking north



Fig 5.29 Row of three storey houses from (left) 75 Caledonian Road to 97 and in the distance Vaultex

*Killick Street North and the All Saints' Triangle.*

Once the site of All Saints' Church in King's Cross, the piece of land called All Saints' Triangle is now the location of a brick enclosure, the Vaultex cash handling facility. The local councillor noted in a local news website (Perrin 2009) that the Loomis company operating Vaultex at the time was owned equally by Barclays and HSBC banks. The building is of an impervious and impenetrable style without windows, and its distinctive features were often mentioned in the interviews. Its external appearance is completely closed and as a high security facility, it has anti-ram-raiding barrier devices in front of the building disguised as planters. The design implications of anti-terrorist design are very negative for this part of the streetscape. The building is recognisable for its razor wire atop the perimeter walls. This has led to confusion in some of the interviews concerning whether the building was part of Pentonville Prison. In 2009, cycle stands were used to prevent parking on the tiny

landscaped area in front of the property (Perrin 2009). On the south side of Caledonian Road opposite is a residential parade of Victorian buildings and a bus stop.



Fig 5.29 Vaultex on the left with curtilage demarcation – bike stands – installed 2010. (Inset – previously used for car parking).

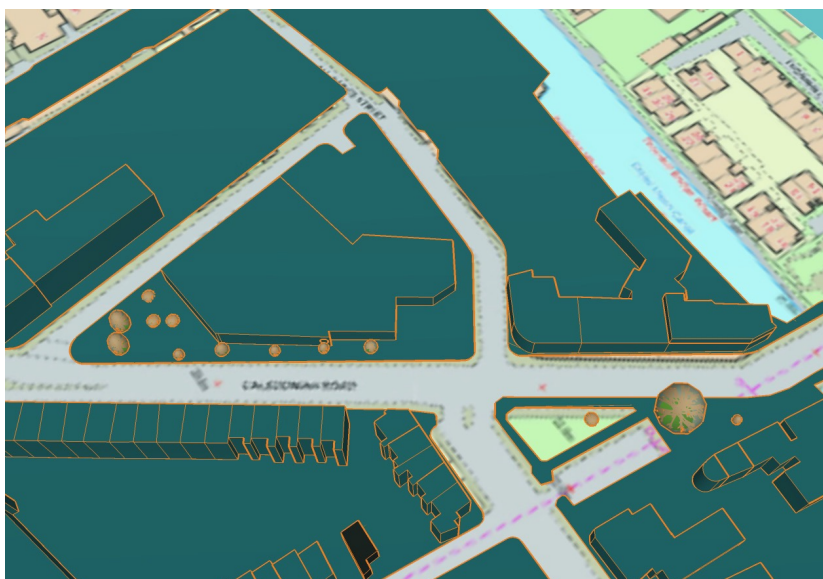


Fig 5.30 Caledonian Road between Killick Street and the Canal, right.

On the top centre of the image on the west side of Caledonian Road is the Vaultex building. (labelled on Edina Digimap as All Saints Triangle (after a former church on the site)

Carriageway width 11m at no 125 Canal PH (footways 2m, 2.1m) at 126 it is 10m wide (footways 6.2m and 2.5m)

### **Conclusion to London King's Cross Case study**

Based on the thorough investigation of the physical environment, the interview strategy was developed and a series of twenty interviews were conducted over the period of the research.

The engineering approach and the philosophical-experiential approach to street design leaves a gap between these two approaches. The use and occupation of the street in the case of lower Caledonian Road is seen as a matter of 'transport' rather than more widely as 'urban culture'. The Borough of Islington's local Caledonian Ward Councillor Paul Convery seems to have confronted the issue recently through a consultation conducted on his political party website (Talbot 2013).

Meanwhile, the highway authority for part of this complex area at the junction of two boroughs has led a consultation exercise called "Proposed improvements and changes in King's Cross" (TfL 2014 – See appendix 10). The authority 'TfL' Transport for London and the department 'Streets' admits however that it does not use its own *Valuing Urban Realm Toolkit* (TfL 2013) when doing its 'Junction Review' process.

The tension, change and transformation in King's Cross remains attractive to creative professions and small enterprises. The former pop-up shop, 'Drink Shop and Do', thrives on the contrasts in the area. Its concept and offer as a bar, second hand shop and craft workshop is in tension with sex shops and attracts Central Saint Martin's students.

The stakeholders here are a range of hyper-local, local, district, city-wide national and international people accessing the area via transport of various kinds to access and support the diverse facilities and amenities available at the site. The authorities are a disconnected hierarchy of London-wide transport authority and two neighbouring local authorities, each working at a much larger scale and apparently ill-equipped to tackle the area in a cooperative and integrated way at a local scale for public realm and transport. The transport

authority will alter junctions one by one but is not able to consider the public realm. The stakeholders, including representatives of agencies managing the area represent a wide range of interests, and go some way towards also representing, even vicariously, the increasingly marginal, hard-to-reach stakeholders.

From the two case studies of Caledonian Road and Niddastrasse in the preceding chapter, we turn to the analysis of the interviews which were conducted within and about the case studies, where the diverse range of views from the interviews was collected against this backdrop of physical environmental information.

Those with an interest in Caledonian Road (south of the canal), include the agencies, the local authority Islington Council, the utilities providers, and the highway authority, which is Transport for London Streets. It includes transport providers and drivers, including freight drivers, taxi and minicab operators, in contrast with local residents and workers parking cycling or walking there.

The hardest to reach users for the research purposes were the marginal non-motorised users, those who would want to pass slowly through the area on foot or by bicycle, but who were hampered by the motor traffic and the adverse air and noise environment. Some of these users were addressed and recruited for interviews through the campaign Bikes Alive, which held events in the case study area.

In the London case study, we have considered the overall profile of London and of the King's Cross Station area, with some background on the siting of the international railway station, and the nearby case study street, Caledonian Road. In the detailed description, we have passed along the length of the Caledonian Road from the south where it begins at Pentonville Road, and is at its most intensively used, near the 'Regent's quarter' and the station. Passing the shopping area around the supermarket, the well kept shops and Keystone Crescent, with only a glimpse of eastern side wall of the station from Caledonia Street, we passed the junction with Balfe Street and the pubs and restaurants to a more residential section above shops between Northdown Street and Wharfdale Road. Past the Cash handling building there are two further public houses and a green space on the east side of the road before the Bridge at Regent's Canal which defines the end of the study area.



Few high-rise tower buildings are visible from Caledonian Road, except for the Nido Student Housing and some medium rise housing estate blocks. Caledonian Road's street level is open and the traffic passes quickly despite the conversion to two way operation in late 2014.

Caledonian Road south of the canal makes a good comparative case study of street design because it possesses some of the critical elements of an intensively used inner urban mixed use street - a diversely used and occupied inner city street near a station. This makes it suitable for analysis of street design, balancing place and movement on the footways and carriageways and ambiguous public realm in development, such as at Killick Street, near the Cash Handling facility. Located in a position indirectly linked to the railway station and with a diverse range of residential commercial and entertainment activity, Caledonian Road is an example of a mixed use street which has the potential to be part of a very walkable and liveable neighbourhood.

The key qualities of place are its vitality around transport, and a subtle noir quality based on the generally tolerant co-existence of visitors, business people and local tenants and residents, which is generally harmonious for an inner city area. The 24hour activity here does not seem comparable to that of a stress zone like Soho in the City of Westminster (Roberts and Turner 2006). Transport accessibility levels in the area are extremely high, with local national and international transport all very near and accessible. Compared to any other city, this is considered an ethnically mixed area in a city with great cultural diversity compared to any other city (Islington 2014).

Caledonian Road is one block away from the border of two inner London Boroughs, Camden and Islington, and is part of a Transport for London Red Route. The section studied near the station is separated by Islington from the remaining part to the north, which is covered by the Cally Plan. The part south of the canal and the major part to the north have each developed slightly different characters: the southern one more influenced by adult and entertainment uses near the station, and the northern one, with more of a high street shopping quality (like the type in the TfL street types matrix), with quieter residential areas behind. Reading the Caledonian Road as a continuous street towards Holloway in the north has some significance for bus routes 91 and 380.

# analysis 6

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

## **Analysis of the Niddastrasse and Caledonian Road case studies**

### **Introduction**

The analysis of the completed interview material, along with the other analyses, extends the use of the constructivist interpretive methodology, outlined in Chapter 3, from the two case studies. In this chapter, grouped themes derived by analysis from the interviews are arranged with the aspects of literature most pertinent to each analytical finding. The literature was analysed in three main groupings, of highway engineering, urban design and the noir related to the street in the *Bahnhofsviertel* context. These are addressed alongside each node of analysis. At the end of the chapter, a set of conclusions are made about the analysis.

The case study chapters above have provided profiles of each of the case study situations in terms of their street qualities, their transport and their demographic situation as two mixed use streets in inner city station areas. This chapter provides the analysis of the Niddastrasse and the Caledonian Road South case studies outlined in the preceding chapters. First, the reasoning and strategy behind the interviews and the analysis is discussed, and an overall description of the forty interviews is set out. There is a brief review of the timing of the interviews, given the stated importance of day and night in the methodology. The specific interview questions are explained in the context of their relevance to the research question about improving street design through accommodating the needs of a more diverse group of users.

In the analysis of all of the amalgamated interviews in both case studies, 28 nodes emerged as themes which aid in the comparative analysis, and six main groups of findings were identified as a way of summarizing these. The qualitative analysis was performed experimentally with the use of NVivo9 and NVivo10 software, which assisted in the keyword scanning and comparing the high quality sound recordings and interview transcripts.

## Reflections

Some general reflections on the interviews are set out by way of introduction to the analysis of a complex set of interviews in London and Frankfurt. The research aimed to investigate the direct experience of the street and these diverse users' views on the strengths and weaknesses of the environment and whether there was interest and confidence in improving the street.

The outcomes from interviewing users included some general findings that on the whole, users accept and are even attracted to the many characteristics of complexity and diversity when occupying inner-city streets. Streets are not a problem to be solved even if they can be improved or made more livable. Interviewees engaged in a nuanced way with the urbanity and complex diurnal character of the inner city streets investigated in these two case studies. Although some texts make a high priority of reducing clutter in street design, for example Davies' *Street Design* (2014), others are concerned with congestion (Manual for Streets 2010). The street users who were interviewed were generally tolerant about any street congestion or clutter they experienced, and they mostly had ways of coping with any form of conflict they experienced between diverse users in the streets. As expected, the interviewees mostly spoke from the non-motorised user perspective, although the proportion of cyclists in the London sample was higher than normal and higher than originally planned because of the local micro-politics in the case study area, in particular the Bikes Alive set of protests. It was found more than anticipated, that the distinctiveness of the architecture and urban heritage of these inner-city streets, in the form of buildings, materials, openings, spaces and uses. The kinds of improvement which interviewees favoured ranged from visual-aesthetic and environmental ones like greening, building conservation, and de-cluttering, to those touching on more complex ideas of vitality, walkability and livability.

The vital, walkable and livable street ideas at the latter end of the scale of potential improvements identified by interviewees were understandably the more difficult to conceptualise for many interviewees, overlapping with safety and conviviality. User interest in improving the street environment focused mainly on visible and tangible design-oriented changes, rather than invisible policy and engineering changes like design speed. For

example, cyclists and pedestrians in the interviews tended not to make mention of immediate potential benefit to local streets from air or sound quality improvements to the same that extent policy makers and professionals did. As outlined in the methodology chapter 3, there are several similarities and some differences between the two case studies. For a moment we consider them each individually.

### **London**

Caledonian Road as a place has been overly defined by movement, and the carriageway was reconfigured from one to two way traffic after the interviews were conducted, in response to long term campaigning. London's transport congestion reduction policy of 'smoothing traffic flow' (TfL 2009) continues generally to prioritise motorists, and this seems to directly contradict the 'reversed hierarchy' for street design proposed Manual for Streets 2 (2010 p7). The policy of 'smoothing traffic flow' has led to removals of pedestrian crossings from streets but not of motorised junctions. The wider journey time impacts on footway journey times – or of footway journey quality or experience - are not part of TfL's assessment of traffic flow.

In Caledonian Road the five crossings have remained. Interviewees expressed concerns about crossing but did not raise the desire for shared space solutions as a means to balancing motorised and non-motorised street uses. The changing urban qualities of King's Cross have pertained more to the station and the west side of York Way and Platform Zero with their clearly industrial and institutional scale, than they have to Caledonian Road, the case study street.

### **Frankfurt**

Distinctiveness of place is largely a visible and recognisable quality which is sought after. In Frankfurt's train station quarter there is an active destination branding campaign, assisted by the *Stadtteilbuero* - the District office, and the *Bahnhofsviertelnacht* – the 'Railway Station Quarter Night' event – and on the subject of this specific *milieu* (noir neighbourhood) and *rotlichviertel* (red light district) there is an ongoing debate in the local and national German media. Frankfurt celebrates the noir and has established *Bahnhofsviertelnacht* as an annual local celebration which provides insights into the area for visitors, and develops awareness of the place and its distinctiveness. It is branded as a form

of district wide block party, incorporating live music in the street and for the curious visitor, architectural excursions to buildings including churches and sex establishments (Stadt Frankfurt 2009).



Fig. 6.1 Taunusstrasse, Bahnhofsviertel, parallel to Niddastrasse on *Bahnhofsviertelnacht* 2009 (photo: the author, September 2009)

Conversely, in King's Cross, the destination branding has been more focused on the privatised international railway station development area (King's Cross Central), to the neglect of the area surrounding it, and framing the noir as a thing of the past.

We turn briefly back to review the broader theoretical framework.

### **Worldviews and Weltanschauungen**

As outlined in the methodology chapter, this research and analysis on street design reflects the researcher's world view or *weltanschauung*, in relation to how it approaches the research on street design through interview analysis. The research methodology is described in chapter 3 as interpretivist and constructivist. These two related methodological

approaches in the research, identified from the tripartite framework in chapter 3, are characteristic of particular philosophical world views and particularly pertain to the interviews and interview analysis. Although somewhat familiar as approaches in architectural research methodology (Groat and Wang 2002, 2013), constructivism and interpretivism are less familiar in spatial aspects of transport planning and highway planning methodologies at the scale of the street. A distinction between highway planning concerns and urban design concerns was developed through the literature and methodology sections. The interpretivist – constructivist methodology used, with its emancipatory intentions, were the background to employing the fieldwork interviews. The interviews were semi-structured, tending towards free interviews following the ero-epic dialogues method set out by Roland Girtler (Spetzmann-Kunkel 2005), where there is no structure or agenda and where the respondent and the researcher can discuss and ask questions of one another on an equal footing. Girtler advises against this type of research method being designed with emancipatory intentions (ibid). Some of the interviews conducted for this study were undoubtedly hierarchical, such as some of those with authorities where there were strict role differences. Others were freer, and allowed more insight into the world and actions of the street users. For example in two cases of interviews in the Caledonian Road, one in Euston Road (interview L 16) and one interrupting during a different interview in Caledonian Road (interview L 18), the unsolicited respondents approached the researcher to have a conversation. In the former case it was for begging, in the latter case to ask directions for local mosques.

The methodology has been outlined and after considering the interviews and the people interviewed, we now consider the interview questions and the strategy for eliciting responses, the methods of analysis, based on the research questions and the results of the analysis.

## Interviews

As identified in Chapter 3, there were forty interviews in or about Frankfurt and London, and they were a mix of male and female participants, a wide range of times of day, and places in the case study areas. Of these there were twenty in relation to Niddastrasse and also twenty in relation to Caledonian Road (south). Interviews and recordings were conducted between 2009 - for the first pilots - and 2012. The long duration provided the possibility of longitudinal dialogue, as promoted in Girtler's method (Spetzmann Kunkler 2005). There were ongoing communications in person and by email, two longitudinal interviews - continuing a year apart - and an unsolicited follow-up from one interviewee, who emailed to report that his colleague had been assaulted. The longer term acquaintance provided insight into the street design campaigning and ongoing funding challenges for example.

The table in Fig. 6.1 below shows the lists of interviews arranged into field and desk interviews. The proportion of field based work in Frankfurt Niddastrasse was thirteen interviews in the field to seven at the desk (70% - 30%). Here, 'desk' means a place off-site or on the telephone between the researcher's and the interviewee's respective off-site desks. The gender balance among the Frankfurt respondents balance was 14 male to 6 female.





Fig. 6.2 Interview numbers with gender and type of user or agency (drawn: the author)

There were also twenty interviews of users and stakeholders in Caledonian Road (south) between 2010 and 2012. The diagram above shows the proportions in Caledonian Road were twenty in the field to five at the desk (80% - 20%) and the gender balance was 12 female to 10 male.

### 6.3.1. The Frankfurt interviews (concerning who was interviewed)

In Frankfurt Bahnhofsviertel, after some pilot recordings and trial video recordings in 2009, the proper recorded interviews on site began in 2010. The starting point was the local planning advisory service, with a planning expert Herr A (interview F1), who was able to point out the areas of responsibility of various planning departments and agencies, An interview followed with the Department Head for Planning in the Bahnhofsviertel (Station) area, Frau B (interview F2). The next two interviews were also experts in their offices, the neighbourhood planner and urban designer for Bahnhofsviertel (Herr H) and the district planner and urban designer (Herr P).

<b>planning advisor</b>	<b>F1</b>
<b>head of planning</b>	<b>F2</b>
<b>local planner / urban designer</b>	<b>F3</b>
<b>district planner / urban designer</b>	<b>F4</b>
<b>local missionary priest</b>	<b>F5</b>
<b>bar cafe keeper</b>	<b>F6</b>
<b>planning advisor</b>	<b>F7</b>
<b>local architects on lunch break</b>	<b>F8</b>
<b>local planner / urban designer</b>	<b>F9</b>
<b>local worker safety inspector</b>	<b>F10</b>
	<b>F11</b>
<b>hotel receptionist</b>	<b>F12</b>
<b>hotel receptionist</b>	<b>F13</b>
<b>hotel receptionist</b>	<b>F14</b>
<b>local graphic design at studio</b>	<b>F15</b>
<b>late night kiosk attendant</b>	<b>F16</b>
<b>city planner</b>	<b>F17</b>
<b>cafe visitor</b>	<b>F18</b>
<b>professor of urban design</b>	<b>F19</b>
<b>restaurant waiter</b>	<b>F20</b>
<b>sexworkers unionist</b>	<b>F21</b>

Fig. 6.3 Interview profiles with interview number F = Frankfurt



Fig. 6.4 Niddastrasse Interviews - details



Fig 6.5. Niddastrasse Interviews – roles of interviewees

### 6.3.2. The London interviews (who was interviewed)

London interviews began in parallel in 2010, with an interview with (Mr) RH from PRIAN, the public realm information and advisory network (interview L1) and an interview by telephone with a blind activist and guide dog user (Ms) JK (interview L2). Pedestrian activists who use the area regularly were then interviewed in 2011 - with the civil engineer and politician, (Ms) CR, interviewed at a nearby café, recorded as interview L3, and an interview conducted on the telephone with retired worker and former Living Streets activist (Mr) NH. A construction manager on site at King's Cross Station (partially occupied as a construction site for refurbishment) was the next interview, with (Mr) TF (interview L5). The next interview (interview L6) was with Art Student Mr SC and a group of male and female professionals at the Green Sky Thinking workshop group in September 2011. Colleagues from on one hand Iran, Ms SS interview L7, newly arrived in London, and on the other, visiting from Frankfurt gave their interviews respectively walking live in Caledonian Road and in the latter case (Mr SC, interview L8) also cycling across a wider area in central London.

A local resident and frequent user of Caledonian Road South as a cyclist was (Ms) LP, and the interview L9 was recorded with (Ms) LP in the evening in early 2011. An architect and CABE Space Shaping practitioner (Ms) CN gave a desk based telephone interview (number L10). This was followed by a series of exclusively field – based interviews; a Belgian tourist couple (Mr C and Ms G) who made contact via London Greeter, a visitor website. The couple walked the length of the case study street during the interview L11, as did transport planner (Ms) JE on another occasion in the interview L12. A shopkeeper (LG) of fifty years' experience at 26 Caledonian Road, was the next interview, (interview L13), drawing in his friends and neighbours to talk about the street and the street design at the busiest point in the case study site. A community activist, (Ms) RW from the 'London Remembers' website, was recorded in interview L14, conducted while walking bicycles through the site during road closure for an evening protest in 2012. Other interviews conducted on the street during the same evening were with Ms LE a local advertising designer, cyclist and blogger (interview L15), Ms JD, an experienced cycling activist with Camden Cycling Campaign (interview L16), a designer, cyclist and blogger (Ms BA, interview L17).

The final few interviews were interview L18, a young Italian architect (Ms LD), interview L19 following up Ms LS in detail about buildings, and interview L20, comprised of a series of discussions at the town hall. L21 was a film professor with his own audacious designs including large A0 drawings on ammonia-printed plans for the traffic movements on King's Cross Gyrotory to be redirected, potentially involving demolishing several historic buildings.

<b>planning advisor</b>	<b>L1</b>
<b>blind activist</b>	<b>L2</b>
<b>pedestrian activist</b>	<b>L3</b>
<b>retired pedestrian activist</b>	<b>L4</b>
<b>construction manager</b>	<b>L5</b>
<b>art student</b>	<b>L6</b>
<b>international architect planner</b>	<b>L7</b>
<b>German architect</b>	<b>L8</b>
<b>resident and cyclist</b>	<b>L9</b>
<b>space shaping architect</b>	<b>L10</b>
<b>Belgian tourists</b>	<b>L11</b>
<b>London transport planner</b>	<b>L12</b>
<b>shopkeeper</b>	<b>L13</b>
<b>activist</b>	<b>L14</b>
<b>activist</b>	<b>L15</b>
<b>activist and cyclist</b>	<b>L16</b>
<b>activist and cyclist</b>	<b>L17</b>
<b>activist</b>	<b>L18</b>
<b>activist</b>	<b>L19</b>
<b>activist</b>	<b>L20</b>
<b>activist</b>	<b>L21</b>

Fig. 6.6 Interview profiles with interview number L = London

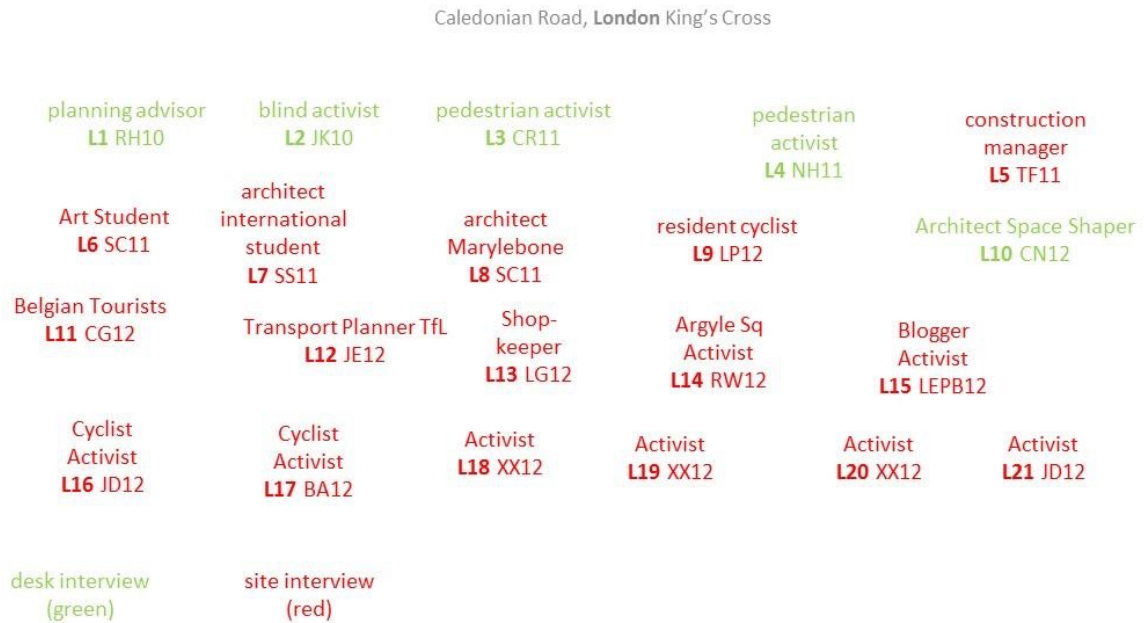


Fig. 6.7 London Interviews – details of interviews.



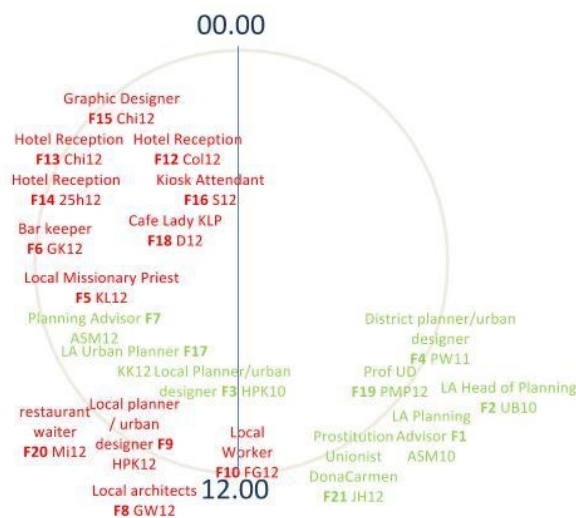
Fig. 6.8 London Interviews – roles of interviewees

**Timings – When the research was conducted**

The interviews were conducted at different times of day and night. The majority were conducted between early morning and late evening. There were informal observations of each of the case study streets in the small hours, and sound recordings and notes were made, but it was considered unnecessary to conduct interviews between midnight and 8.00 am.

The after-work hours of the evening were especially important however in both studies, which observed some of the street front activity, pedestrian counts in the case studies and allowed some observation of entertainment, residential and noir activities between dusk and midnight. Some businesses in each of the case study areas operated late hours, to accommodate the railway station or for other reasons of diversity of business, and this is mentioned in the case studies. Although Frankfurt *Hauptbahnhof* has some train services arriving and departing through the night, this is not the case with King’s Cross St Pancras international station complex. International trains arrive and depart from early morning till late evening, with limited public use between midnight and 5am, and also King’s Cross Station closes to the public during the small hours when there are no arrivals and departures.

Niddastrasse, Bahnhofsviertel Frankfurt



Caledonian Road, King’s Cross, London

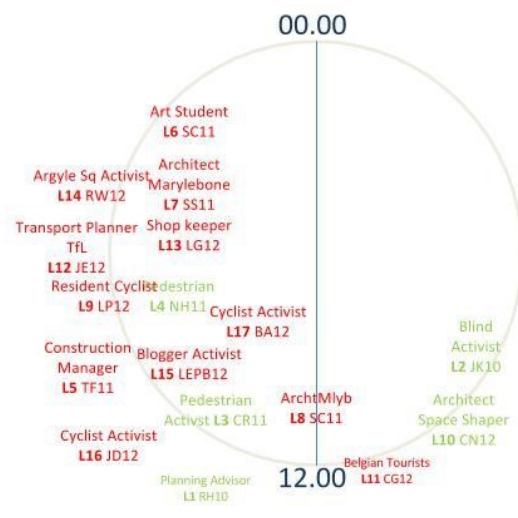


Fig 6.9 Approximate times at which interviews were recorded – 24 hour clock

The majority of interviews were conducted between 10 in the morning and 10 at night, but reference was made to times of business and other activity in the street.

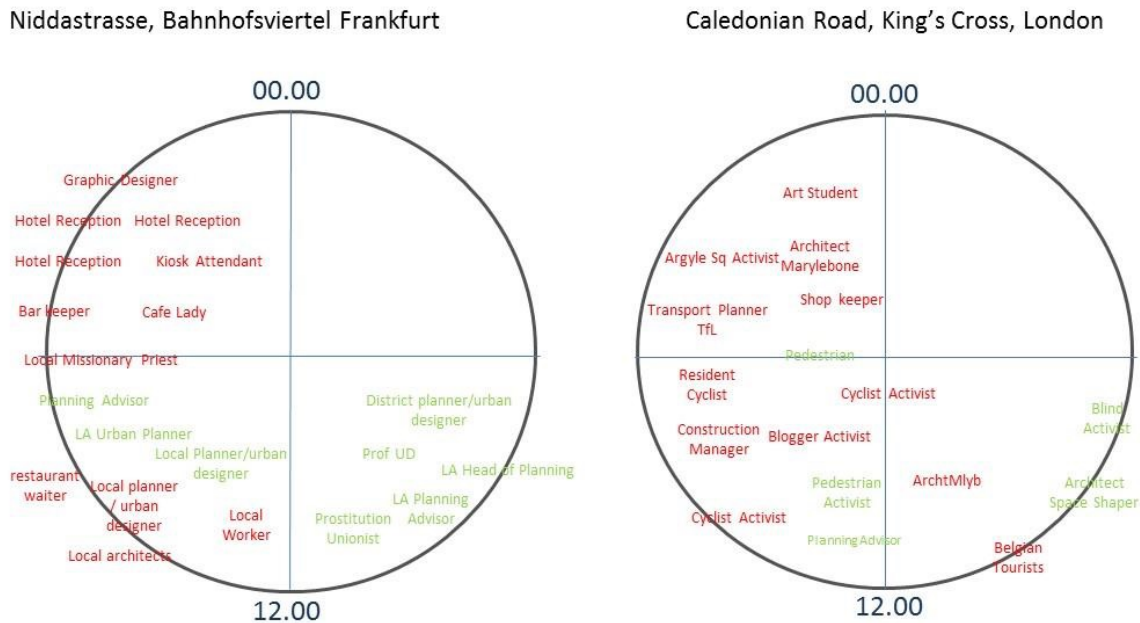


Fig. 6.10. Role identities of interviewees plotted on the 24hour clock.

#### 6.4 Interview Questions – what was discussed?

The following questions were used as the basis for interviews about context, and some questions were concerned with comfort, safety and desire to be involved in designs which would improve the street. Some other questions arose spontaneously. The analysis nodes derived and the context of outcomes from the interviews are explained below.

The questions asked in German were set against a brief interview context – it was stated that the research aims to gather the experiences of walking and cycling street users to improve street design. The pretext for being in the street and the role played in the street was also adapted for experts and manager roles. In questions 3 and 4, open questions about subjective likes and dislikes were asked, and similarly questions were asked about the influence exerted on walking and cycling users by motorised forms of transport. Questions 5



to 9 are about the willingness to use both sides of the street, the level of rapport or conviviality with local acquaintances or staff of businesses on the street, and the times of day the street is used. Questions 10, 11 and 12 are concerned with engagement and imagination about the potential for any improvement.

The full analysis of the responses to the interviews is set out below at 6. The relationship of the responses to these questions and the research questions is then set out discursively in chapter 7, the findings discussion chapter.

## **street design and user participation**

### **SEMI-STRUCTURED INTERVIEW SCRIPT**

1. Ziel diese Forschung ist es, durch Benutzerbeteiligung der Strassenentwurf zu Verbessern, mittels Analyse der Erfahrungen mit dem zu fuss gehen / das Radfahren der diversen Strassenbenutzer
2. Warum kommen Sie hier? Wo gehen Sie?
3. Was moegen Sie und was moegen Sie hier nicht?  
Gibt es etwas Sie Zeigen koennen?
4. Wie beeinflusst Ihnen as Fussganger-Radfahrender der motorisierter Verkkkehr?
5. Benutzen Sie eine Seite der Strasse eher als die Andere?
6. Kommen Sie machmal BekanntenInnen hier entgegen?
7. Kennen Sie Betriebe oder Kauflaeute hier?
8. Zu welche Zeiten besuchen Sie hier?
9. Vermeiden Sie etwa zu bestimmten Zeiten dieser Gegend?
10. Was haetten Sie gerne hier verbessert?
11. Gibt es hier etwa moegliche hindernisse zur Verbesserung?
12. Welche moeglichkeiten werden Sie zur Verbesserung diese Strasse hier Vorstellen?

Fig. 6.11 Semi-structured interview questions Frankfurt (German language by the author with editing assistance from S. Cvitanovic) (see Fig. 6.10 in English).

It was considered from the outset with the first moves towards a research design, that any rapport would have been very limited had the interviews been attempted in English, so it was essential to conduct the interviews in the local language, German. The dialogues developed really well working in German in Niddastrasse and in only two of the interviews, did the respondent prefer to use English. In one case, the respondent was not a confident

German speaker, possibly newly migrated, and in the other case, the respondent had studied planning in the UK and in his view, considered English more appropriate for an international comparison study.

The London questions were exactly the same questions in English;

## **street design and user participation**

### **SEMI-STRUCTURED INTERVIEW SCRIPT**

1. This research study aims to improve street design, by analysing the experiences of diverse street users of walking / cycling here
2. What brings you to use this area? Where do you go?
3. What do you like and dislike about this area?  
Is there anything you can point out?
4. How does the motorised traffic affect you as a pedestrian or cyclist?
5. Do you use one side more than another?
6. Do you bump into anyone you know in this area?
7. Do you know any shops or shop keepers in this area?
8. What time(s) do you visit the area?
9. Are there any times you avoid the area?
10. What would you like improved?
11. Are there any possible barriers to improvement you can identify?
12. What opportunities can you imagine for improving this street?

Fig. 6.12 Semi-structured interview questions London (based on German language).

### **Frankfurt - Where the research was conducted**

The locations of the interviews were recorded simply as on site or off site, but the positioning in the street is clearly recorded on the sound recordings, which incorporate audible urban ambiances and occasionally unexpected information, as discussed in the

section above, and in the methodology. Off site recordings were conducted either well away from the vicinity of the site, like the office of the Professor of Urban Design, or on the telephone.

### **London - Where the research was conducted**

Again the interview locations were consciously not recorded photographically, but the relevant features were described audibly, positioning relevant information about Caledonian Road south in the audio recording. A site visit was also made with a sightless transport planner friend and the effect of weather and time of evening on the acoustic and ambience of the street was observed. Again, off site recordings were conducted either well away from the vicinity of the site, or on the telephone.

### **Research Questions – their relation to the interview questions**

The main research question – ‘how might street design better accommodate diverse users?’ – was then expanded into its sub-questions and components and tallied with the interview outcomes in the form of the 40 responses here:

The main research question was how street design might be improved by engaging a wider than usual diversity of users. The question was subdivided into sub-questions about movement and place, about night and day, and about engagement in and understanding of process. For example, as outlined in Chapter 2, a progressive professional literature on street design in built up areas now insists that pedestrians should be placed at the top of a hierarchy of design (MfS 2010 p7), and accordingly the interview strategy addressed these users first.

The research question was expanded in four ways as follows; firstly, how can design of streets be better guided or orchestrated in inner city station areas, secondly, what is the relationship of day and night in these areas and also what is the relationship between the quotidian and the noir, thirdly, how to balance place and movement, and fourthly the question of how engagement and participation in civil society play their roles in inner urban development.

The interview sample was constrained by factors described in the methodology, including time and logistics. Also, there were some biases in the sample, where the times of day and night or ages of interviewees were not completely random. It would have been convenient

to conduct interviews during the day and in the evening rather than in the middle of the night or very early in the morning, but an effort was made to vary this. One pilot was conducted in London and a recording made at 0200 with a Green Sky Thinking Workshop participant for the Cities Methodologies conference workshop. In the latter case, the wee hours were sampled to give further information about Caledonian Road, whose 24 hour life is not well documented. It found that there were a few lights on, little traffic and almost no pedestrian activity.

This late night visit was considered useful but not necessary to repeat. On another occasion, when the interviews were completed, when the researcher visited the site at 0400, the birdsong in late autumn was unexpectedly noticeable, relating to another interview with a cycle-mounted street user observing the unusual presence of urban nature sounds – bird song - on the gyratory system when it was closed for a gyratory removal and cycle safety protest, Bikes Alive (Recording L16).

Given the various limitations of the fieldwork, the material gathered was nevertheless rich and goes some way to reflect the diversity of stakeholders in these inner city streets.

Over twenty points of contact in each case study, on reflection seem to provide a rounded understanding of these specific places, verifying through primary research some of the veracity of minor issues in the street scene, like the presence of “junkies” (as they are called in German US English slang in many of the interviews) in the street, or begging and prostitution which is made clear in secondary sources. Equally, the qualities of the physical environment at different times of day and night are highlighted in the interviews and accord with some of the reports and stories published on television and the web.

The 26 analytical nodes identified are shown in the table below (Fig. 6.1) grouped into six themes, and the following discusses how they were derived from the semi-structured interview questions.

### **Connecting the analysis to the literature**

The street design literature discussed in chapter 2, including that in the first category of road and street suggests the balance should change from one of motor domination to pedestrian comfort. The ostensible widely-accepted professional literature now espouses

pedestrian priority in design (Jones Boujenko Marshall 2008, MfS2 2010). Yet as Evans and Young (2010 p 13) point out, only 15% of decision makers attending their training are aware of the existence of the *Manual for Streets* (MfS 2 2010). The reversed hierarchy is apparently simply not occurring in the case study site in London. The issue is less contentious in Germany, but the roadside carparking spaces and the difficulty of crossing at some points set the scene for some similar problems stemming from the legacy of motoring-centred street design. There is confusion between design with pedestrians in mind as the top of the user hierarchy, constructing these designs, ‘the rules of the road’ and the ‘law of the jungle’; each of which is slightly different. *Manual for Streets 2* provides guidance about the pedestrian at the top of the user hierarchy, this is either applied to carriageways and footways specifically or superficially to entire schemes, the schemes are constructed or applied, and then the highway code and rules of the road come into play. Additionally, if the highway code is breached, in an accident or collision the more powerful user ‘wins’.

As outlined in chapter 2, the new street design literature (Davis 2014, MfS 2010) suggests pedestrians should be the top priority in street design, and the needs of pedestrians considered first when “designing, building, retrofitting, maintaining and improving streets” (2010 p7). As outlined in the methodology chapter, the interviews therefore focussed on users fitting this description. Plentiful information is on hand from transport engineering literature, including the government guidance from DMRB and the DfT about the moving vehicle. This study focuses on the pedestrian and non-vehicular or non-motorised street user. Although not considered immediately at the start of the research, slow-moving cyclists in the street were included in the interview after the issue of street design for cyclists at the beginning of the study became considered particularly important in the London Caledonian Road study.

### **The Interview Analysis**

This section explains the analysis of the interview data collected from both case studies. The entire body of information was considered and the most significant themes of analysis were drawn out qualitatively with the aid of transcriptions and NVivo qualitative research analysis software to identify language and emergent themes.

Six main themes emerged from the data in the form of interviews recorded with some supplementary information.

### **Interview themes**

The case study area in the Niddastrasse, Bahnhofsviertel Frankfurt has a particular and distinctive quality, yet does not comply with any template or stereotype of distinctiveness. Compared to London, this area seems uniform, with more consistent building heights, bollards and pavement materials, but the users have a perception that it is different to other streets and the area is different to other parts of Germany. Similarly, Caledonian Road has special qualities on various scales, from frontages, to greenery, to clutter and energy, all of which were identified in the interviews. Each street studied was understood and considered by interviewees as distinctive in several comparable ways according to eleven of the analysis nodes identified – the most numerous of nodes among the groupings identified.

The 11 nodes grouped in the category of 'distinctiveness' were;

1 Gelebtes Multi-kulti" (Lively Diversity)

2 Design

3 Car Centric Planning

4 Adult Entertainment

5 Active frontages

6 Greening

7 Decluttering

8 Bollards and Railings

9 Trees

10 Deemed to Comply with planning

11 Energy

The literature which relates to distinctiveness in urban design was outlined in the urban design and the noir areas; this ranges from the highway engineering area, in degrees of traffic segregation in streets (Buchanan 1963, Reichow 1959, Jones Marshall Boujenko 2008

and Manual for Streets 2 MfS 2010) to Urban Design (Lynch 1960, Cullen 1961, Engwicht 1993, and Carmona 2010) and beyond. The principles of street design are continually rediscovered in the interviews based on the diverse users, who as a group help to critique normative views of the street design through a perspective which in the literature review was broadly described as the noir urbanism of the station quarter.

For example, there are seven commonly known qualities of urban design as referred to in *By Design* (DETR 2000 p15). Cullingworth et al (2015 p373) notes that although *By Design* principles were regarded as mainstream in the 2012 Taylor Review, they are useful for understanding the analysis of the street here from which are revisited here from the Literature Review in Chapter 2;

1 Character

2 Continuity and Enclosure

3 Quality of Public Realm

4 Ease of Movement

5 Legibility

6 Adaptability

7 Diversity

*By Design* (DETR 2000 p15)

These 'By Design' headings can be compared with those which emerged from the research interview analysis; distinctiveness, conflict, transport, accessibility, transition.

Liveability in street design relates to many of these physical design aspects, especially character, quality of public realm and legibility.

As discussed in the case study, according to the new sustainability index based on people planet and profits, Frankfurt is considered the most 'sustainable' world city (Arcadis 2015). The interview analysis breaks down some of the criteria based on a specific subgroup of people and in the context of the specific street in the station quarter, Niddastrasse.

**Distinctiveness, 1** - General "Gelebtes Multi-kulti" (Node 1)



This node group focussed on 'Occupied Multiculturalism and Lively Diversity'; aspects of distinctiveness of place.

Distinctiveness was coded in the interviews as references to place quality, which interviewees identified in various ways as somehow unique and memorable about the part of the street being considered. In all, there were 219 references coded as 'distinctiveness' in the interviews in London and Frankfurt.

Old or historic buildings, which to some of the interviewees, indicated an interesting, rich or diverse historical context, and also diverse ranges of night time entertainment, stood out in each of the case studies as distinctive. The latter suggested the interest of many interviewees in a diverse urbanity during a wider range of hours of day. There was recognition of the night scene in Frankfurt Bahnhofsviertel as a tour destination or civic awareness-raising destination via the programme *Bahnhofsviertelnacht*.

The '*Bahnhofsviertelnacht*' (Station Quarter at Night) Tour on 20 August 2009 was a general architectural history and civic history tour of the area around the case study in the railway station quarter of Frankfurt. In Niddastrasse, the notion of courtyards (*hinterhoefe*) concealing refuges beyond the street, as places that were secluded and safe from the street emerged as one such strong idea.

In Caledonian Road, although there is one remarkable courtyard development (Regents' Quarter, an award winning regeneration project) at the start of Caledonian Road at Pentonville Road, the streetscape has remained. Further similar developments have followed in Balfe Street. A new development is planned for the Institute of Physics. However in the London interviews, more attention in the interviews as regards landmarks of buildings was given to negative examples on Caledonian Road itself. An especially negative example was Vaultex secret cash handling facility at 200 Caledonian Road, confused by some interviewees with the prison or swimming pool further up Caledonian Road. A more positive

example of a distinctive built landmark was given in the interviews as the small picturesque crescent row of Georgian terrace houses called Keystone Crescent.

### **Distinctiveness, 2. Design (node 12)**

In Frankfurt, the various related processes of redesigning, re-engineering and reorganising streets had a different interrelationship than in London. This could be connected to a notion that the German culture of design as an activity and perhaps also as urban profession is more embedded professionally in architecture as a twentieth century modern science rather than as a humanist art.

*Städtebau* (City making / building) is more structurally based than urban design in British culture, where it is often regarded as strongly visually aesthetic. The argument is made by Glancey in the AR for example that Cullen's *Townscape* was regarded in Germany not only as humanist but also picturesque, less objective or *sachlich* than equivalent notions in German *Städtebau*.

In an interview with the chief town planner of Frankfurt Bahnhofsviertel, the terms *gestalten* or *umgestalten* were used several times in relation to design changes to Bahnhofsviertel and Karlsplatz on Niddastrasse (F2). *Umgestalten* could be rendered closer to 'reconceptualise' than 'redesign' – but the interview suggested that the changes to the area in order to improve walkability and attractiveness of the street environment would be serious and structural, rather than aesthetic or decorative. Perhaps the idea of environment (*umwelt*, context) can also be differentiated from the oft-cited English one, environment, which seems to be more about air quality than built environment.

The planner representing the Bahnhofsviertel District Office, the *Stadtteilbuero* Bahnhofsviertel, in interviews used the term 'design' broadly in referring to a democratic process (interview F3), while references to design in the interview with the ABSV (*Allgemeine Blinden und Sehverhinterter-Verein*, The National Association of Blind and

Visually Impaired People) were more technical, referring to physical design measures which might be taken in specific contexts. For example *physikalische Massnahmen* - physical means and measures (F4.1), were based on the design for accessibility for blind and visually impaired street users, including *Bodenindikatoren*, ('floor indicators' / tactiles) (F4.2).

In the case of work on Karlsplatz, in the centre of Niddastrasse, the city planner for Bahnhofsviertel raised the issue of the design of a public urinal as part of the square redesign: "*Ein offenes Stehpissoir, also eine S-förmige Wand wo zwei Leute nicht sichtbar urinieren koennen*" (interview F17.1). An open standing urinal, with a wall in S- form where two people (men) can discreetly urinate independently of one another.

It was part of the competition brief for the architects to make proposals. There had been a competition with two winning designs. "Both should be further developed - as far as I know both designs were further developed, but there are issues to resolve with both of the sponsors" (interview F17).

The street user perspective on design for blind access in the public realm in another interview was critical of tactile paving design; "There are areas for buses and pedestrians all on one surface level. They have demarcation of tactile surfaces, but I find it difficult, you could step over it! A cane could pick it up, but tactiles are not so easy for the guide dog – you could step across without knowing" (Interview L3.1) The perspective was also from the viewpoint of the guide dog: "Dogs won't stop on a shared surface, or on tactiles; they need special training - dogs are trained for kerbs" (Interview L3.2).

In a London interview, a participation expert, trained in using the CABA Spaceshaper tool, explained alternative design approaches, with and without structured frameworks, as integral to a participatory design process (Interview L10.1, Interview L10.2). She suggested it was necessary to return to "basic design principles of this place" (Interview L10.3).

A transport planner working at Transport for London, but participating in this interview case independently rather than as a spokesperson for TfL, was interviewed in Caledonian Road on the topic of design in relation to street design, and also took a functionalist-pragmatic view, with an emphasis on accessibility; “accessible crossings and bus stops and those with disabilities, making sure that the street environment’s kind of ok for that” (Interview L12.2).

The basic view of ergonomic accessibility is also related to the ‘strange’ giant flowerbeds at Vaultex on simple practical level, about suitable sitting heights for planter beds. Their primary purpose as anti-ram-raid devices seems have dominated the design brief, and prevented or distracted from their being a ‘sittable’ height (Interview L12.3).

Bureaucratic problems typically encountered with ‘design by committee’ were outlined in the same ‘expert’ interview, with the transport and public realm planner from TfL. She suggested the governmental silos would be a major design constraint for Caledonian Road: “Well, the whole kind of King’s Cross Gyratory and then ... the north part of this obviously forms part of that. Quite a lot of it is borough roads, as well as TFL roads, so it’s getting everybody agreed on how to move forward.” (Interview L12.5).

“That’s the problem with making some of these roads 2-way again... it is like junctions like this, where they are quite tight, and they’re not perfect. We don’t have junctions which are perfect T-junctions, where they’re slightly off at an angle, and it can create more conflicts when you have traffic going in multiple directions” (Interview L12.6).

A multi-agency consultation meeting with local stakeholders was held in respect to the regeneration of the gyratory on the 20th of November 2012. It remains to be seen whether the meeting will precipitate any regeneration objectives related to those desired by people who work and live in the area.

In another part of the gyratory nearby in the same area, an ongoing road junction and public realm design problem was commented upon in another interview with a cyclist. In reference to the prominent accident site in Kings Cross where Min Joo (Deep) Lee was killed in October 2011, the cyclist interviewee said; “really TFL are completely mad thinking you need two lanes through the junction” (Interview L15).

The same transport engineer mentioned above emerged representing TfL as an expert facilitator at a subsequent consultation meeting in March 2014. In the latter setting, this transport planner defended the (motorised) transport bias and the compromised public realm design on the basis of TfL’s policy of ‘Journey Time Reliability’ in the street design proposals. The ‘Engagement Report’ response in Appendix C cites an “eleven minute delay” rather than an effect on journey time reliability (TfL 2014, p.10). The politics between internal departments are probably more significant than this misunderstanding of the difference between delay and journey time reliability.

**Distinctiveness, 3. Car- (Motoring- ) Centric Planning (Node 4)**

In the selection of two the case study areas, Frankfurt and London, there was already an hypothesis about regeneration of streets in Europe in inner cities in relation to motorised roads, high streets and what UK calls ‘mixed priority routes’ (Department for Transport Local Transport Note 3/08 2008). In the post war period in both cities, motorability of cities was promoted. The *autogerechte*, car-centric or motor-centric tendency in public realm design in each of these two urban areas emerged as an issue related to the legacy of post war urbanisation, growth, densification and modernisation.

Car-centrism was partly implicit in modernisation and growth in post war urbanity. Key literature landmarks on this topic are Buchanan (1962), *Traffic in Towns, the Buchanan Report*, and Reichow’s (1958), *Die Autogerechte Stadt (City for Cars)*. Only in recent decades, especially in the early twenty- first century, has transport and place planning thinking been in transformation. These two sites however are not yet practically affected by ‘schemes’ of the order of those for the nearby city squares, the Frankfurt railway station square *Bahnhofplatz*, which had stalled in negotiation with the railway *Deutsche Bahn*, and *Kings Cross Square*, under construction in 2012, funded by *Network Rail*, after decades of deliberation.

The planning method in the streets sites studied here tends (understandably) to favour movement-based or transport-based analysis of the public realm, at the expense of spatial or architectural-spatial dwelling or lingering place at the pedestrian level. Especially in the context of the UK planning system, even with the recent NPPF framework intending to move local input from consultation to collaboration, a consultation-based brief process hinders progress, keeping participation at a tokenistic rather than collaborative level (Arnstein 1969:217). The motor-route planning (car centric) method emphasised invisible intangible networks and temporality over tactile tangible place at a local level.

**Distinctiveness, 4. Adult Entertainment (Node 16)**

The realm of urban and over-18 entertainment is something distinctive and specialised for inner cities. The diversity and noir character of metropolises and large cities like Frankfurt and London mean that the after-hours entertainment scene and adult entertainment have their own richness and sophistication which may not be present in small towns and cities.

The night-time city and after-hours or evening economy was a key theme from the beginning of the research, focusing on inner-city areas where the 24-hour cosmopolitan city aims to provide diversity especially in its well-connected innermost streets, offering everything from the mundane to the distinctive, early or late hours. Adult entertainment, often associated with night time culture and night clubs can be operated at all hours, with adult bookshops or adult cinemas operating during daylight business hours.

Adult or after-hours entertainment ranges from evening and night time shopping and trading from restricted books and specialist underwear fashions, niche alternative services and toys to artists tattooing, wellness facilities and services to sex services and support.

The famous adult entertainment in Frankfurt known as the eighteen licenced brothels is managed simply by licensing specialist 'love' hotels available to use with close supervision and safety facilities on a high room occupancy turnover basis. One sex worker may use the same workspace with various clients / groups in succession.

#### **Distinctiveness, 5. Active frontages (Node 18)**

The analytical node for active frontages identified visual character and greening but was also based on negative identification of inactive and opaque frontages. In Frankfurt, two architects in Niddastrasse promptly commented on the "*dichte Wand hier lang*" - "hermetically sealed wall along here" onto Niddastrasse north side between Elbestrasse and Moselstrasse (interview F8.1), but also the controlled visibility through frontages which were not inactive was notable in the area: "*die eigentlich nicht wollen, das man gesehen wird, wenn man da reingeht, ja.*" – They don't really want that one is seen when one goes in there, yes..." (interview F8.2)

The interviewee who works as a representative of the association of sex workers noted that the street scene in parts was comprised of "blocks of stone standing here... and because the workers there drive behind and into their own garages, they see very little, they don't really see anything" "*Steinblöcke, die da herumstehen, und dadurch, dass die Beschäftigten auch in diese Garagen fahren, hinter reinfahren, sehen sie sie kaum, sehen sie sie eigentlich nicht*" (interview F21).

An interviewee new to London read the lights in buildings as voices “just look at the lights of the houses, so that makes you feel there are a voice” (interview L7.1), and noticed that shops provided a more active streetscape “number of the shops are more on the other side” (interview L7.2).

A (vegetarian) interviewee said she was pleased about controlled transparency of the frontage: “Very anonymous shop fronts with blocked out windows, which is fine by me in terms of the butcher, I don’t want to have too much butcher window on display (interview L9.2) but also appreciated the design of the interface between shop and street: “I like that there’s this really big window ... they have this high diner bar in the window that people can sit at as well, which makes it feel a bit less open if you’re sitting in there. You’re not necessarily on display, but there is a natural light and, when you walk past, there is the effect of being able to see the light and the movement inside in a more direct way” (interview L9.3).

In Caledonian Road, as previously discussed, the Vaultex cash handling facility on the site of the former All Saints Church, with its bunker-like appearance, through perhaps a lack of distinctiveness, led to ambiguity about the imagined purpose of the building, and it was confused with the swimming pool and the prison further up Caledonian Road.

“You’ve got the swimming pool on the left which doesn’t really have any interaction with the street.”

“I think that’s the cash handling, the pool’s further up.” (interview L12.1).

The unusual planters in front of the cash handling facility, which double as ram-raiding barriers, under a special planning exception for high security facilities, came in for comment in relation to their design. The transport planner noticed that the planters were not at a sittable height.

“They’ve not got very nice ... obviously, it’s the middle of winter, so it won’t have that many flowers in it. But you think, if you’re gonna create something just by a bus stop, you’d have it at a height where somebody could sit on the edge of it if they wanted to” (interview L12.2).



The preference of which side of the street to walk on Caledonian Road clearly related to attraction to active frontages: “I think I’d use the other side from where we were. I’d have walked on the right coming up, on the north east side, because you’ve got properties looking onto the front there. It’s a bit more well lit and, when you’re further back, you’ve got the shops there as well so ... you can browse the shops.” (interview L12.3).

“Obviously, it makes a nice environment if there’s people actually sat outside using it” (L12.5)

“Its called Drink, Shop & Do and they’ve got a little table out there and occasionally people use them” (L12.6).

Jane Jacobs’ idea of the eyes on the street (Jacobs 1961) is expressed in the following: “If you were working outside and there was nobody else outside, there’s somebody there. I can see some people are there, and if there was something happening here, they also can see me. So, if I was stood at the bus stop, and someone tried to attack me, then if you shout out, those people can see what’s happening” (interview L12.8).

A user / cyclist suggested that reducing the volume of motorised traffic might contribute to the attractiveness of pavements.

“The mass amount of vehicular journeys that don’t need to be made, remove them from a city and you start getting people in and you start getting tables on the side of the street” (interview L16).

When prompted, two (young female) Italian interviewees, new residents of Kensal Green in London, noticed the transparency but also ambiguity of use of a Caledonian Road shop front: “It’s strange because the glass are high ...all the windows and doors...” (L18.1) “Why you can’t see through the windows, through the doors? They don’t want to show what happens inside?” (interview L18.2).

### **Distinctiveness, 6.** Greening (node 20)

This analysis node combines to some extent with trees, but the notion of greening captures the general importance of vegetation in the street scene, from window boxes to hanging

baskets as well as street trees, which serve as a very specific type of street furniture.

The living green facade of the pub ‘The Driver’ in Caledonian Road at the corner of Wharfedale Road was an important reference for some of the London interviewees.

Living facades and living greenery is recommended in much of the guidance from chapter 12 of the Manual for Streets – on street furniture and trees (MfS 2 2010 p 83).

### **Distinctiveness, 7. Transitional place (node 21)**

In the Frankfurt interviews, there were several references to transitional spaces, ranging from *verkehrsberuhigte Bereiche* (interview F1.1) traffic calmed areas, to people passing through (interviews F5.1, F9) and the articulated ownership and management of different types of parking space. People passing through as a component of the population of street users is given a certain character because of the *Frankfurter Modell*, Frankfurt’s open drug user support strategy, which effectively attracts users from the entire Rhein-Main conurbation via the transport network.

The parking place types discussed with the local planner are named as ‘*Parkstand*’ in public space, or ‘*Stellplatz*’, in the case of a privately owned or managed parking place on private land (interview F17.1).

In the London interviews, references to transitional place included a zebra crossing on Caledonian Road (L9.1) because the space is negotiated by pedestrian and motorist.

There was a reference to fear of cycling, which was coded as transitional place because the interview referred to a great willingness to use unmotorised environmentally friendly transport, but street users felt less safe cycling than they do when walking on the footway (interview L1.2). The latter is often an important component of transfers between transport modes in hubs like King’s Cross, where passengers are in transition between taxi and train, bus and train, underground and overground train via shop or snack, and so on.

One reference was to a high street shop in transition between Post Office shop and a Laundromat “The Post Office function was taken away and it was still a very small grocers.

The owner was very forlorn, and looked very depressed, and asked me what I thought might work well. He thought maybe, with the students coming to the area, that a Laundromat might work, so I’m very happy to see that he’s trying that out...” (interview L9.2).

The transport planner interview pointed out garbage bin movements “... bins out today” (L12.1) There was also an expectation management issue about the street being calmer than expected. “What’s happened somewhere else that’s stopped all the traffic coming up here at the moment? Or it’s just a lot quieter than I thought it would be...” She also voiced her own biased perception that the area is a road rather than a place in the sense of a destination: “I use it as more of an interchange than a place to go, definitely. I don’t see anything that I’d actually come here for in particular” (interview L12.2). “It’s only just getting dark now, it’s not an area that I would choose to walk about.”

### **Distinctiveness, 8. Decluttering (node 24)**

Decluttering is one of the most noticeable features of the process of street improvement schemes, because in public realms associated with avoidance of risks, engineers and caretakers of the public realm may neglect to expediently remove unnecessary, obsolete or duplicate items. The aim of decluttering has become an obvious target for street improvement schemes.

In one of the Frankfurt interviews, it was suggested that in a certain location, because the footways are narrow there, there could be little street furniture (*aufgrund dessen, dass die Gehwegbreiten nicht sehr groß sind, wenig Straßenmöblierung.*)

For blind people, de-cluttering will have a specifically limited effect, and the “experience of the ‘Shared Street’” will be a tactile and physical and auditory one, rather than a visual decluttering.

The Transport Planner in interview commented generously on the physical environment with a clearly learned interest in de-cluttering. “You’ve got a fairly wide pavement on this side. It seems to work well in terms of numbers of people using it and it’s not really cluttered in terms of environment” (interview L12.1).

She continued, “you always see more street furniture all the way along the other side. You’ve got all the lamp columns, you’ve got trees and bollards and signs and a lot of stuff going on” (interview L12.2).

An interesting distinction between high streets passing by basements with or without bus routes was noted. “I suspect the bollards are there because there is actually basements

underneath. On this side, the pavements come out quite a long way, so they probably cover all of the basement. But, on the other side, they probably made the pavement shorter to get the bus lane in and then put bollards all the way along to stop people parking, because they collapse into the things. Although basements are the responsibility of the owners under their Act, when you put buses over basements, it then becomes the responsibility of TFL and the Highways Maintenance” (interview L12.3).

The Vaultex planters discussed under greening may become candidates for a decluttering program if there were a change in the security risk assessment of the building adjacent (interview L12.4).

The transport planner was clearly on familiar transport engineering territory when it came to the subject of guardrail removal plans, which has been foregrounded in guidance in London in 2012.

“I have a particular dislike of railings. I don’t really understand why we have so many railings around a park. Some of them are to stop them getting in overnight and stuff ... especially these ones where you could access it from the other side. It’s not really necessary to have these big high bollards here which separate you from people sitting over there” (interview L12.5).

She also noted in a nearby location “You’ve got lots of bins” (interview L12.6) but it can be argued these are an important community facility on Caledonian Road.

“I definitely think there’s a case for de-cluttering the bottom bit of the street. There seems to be a lot of signage and bollards and stuff there and there does seem to be quite a lot of space for cars compared to pedestrians, definitely”.

“You feel like there’s three lanes for cars when you get further down and you’ve got quite a small pedestrian space. But, it depends how many people the pedestrian demand is, ‘cos I know in the morning peak that cars can just sit all the way along here, so there’s that balance of who’s using the space more” (interview L12.7).

In regard to parking, there was a clarification of the markings on kerbs, which duplicate information on parking signs, “because people actually read the signs, like we are doing, instead of looking at the blip thing, that’s why the DFT have decided it’s unnecessary to

have extra blips” (interview L12.8). The painting kerb markings (“blip things”) were ambiguous compared to the signs.

The engineer JE said, “we’ve got 2 things saying it. Like, on the one way signs like that, you’ll only have to write it on one side of the road instead of on both, because it’s quite intrusive to see them both like that. But, if you’ve only got one, we should be able to take in that information” (interview L12.9).

**Distinctiveness, 9.** Trees (node 25) – trees, as distinct from greening or planting

Trees were mentioned in both Frankfurt (interview F2, F8) and London (interview L12) as an important element of making streets attractive, but were not mentioned in the interviews at night. The lighting of trees would be an aspect to consider.

Allan B Jacobs’ *Great Streets* identifies trees (1995 p 293) as one key factor in the making of fine urban streets.

**Distinctiveness, 10.** Deemed to comply with planning (node 27)

The node, with this unwieldy sounding name, refers to the different planning systems in Frankfurt and London and generally between Germany and UK. Planning approval for development in Germany (and Austria) is integrated in the same process as the building permission, because there are clear planning guidelines to comply with, in the form of the *Bebauungsplan* (Site plan) and the *Flächenwidmungsplan* (Building uses plan) for every land parcel.

In an interview with the neighbourhood planner responsible for the *Bahnhofsviertel Stadtteilbuero* (district office), he said that in Frankfurt there was only “one permission process” (interview F9f.1). This was in reference to the comparative two stage planning application in the UK – planning use permission and later building permit application. In contrast to the planning application process in the UK, involving a local authority committee, in Frankfurt and Germany, he said, we “don’t actually need to go to the *Bauaufsicht* – building control - to ask for permission, I only send them a letter” (interview F9f.2).

The implication is that planning frameworks are more open to negotiation than building control. This seems spatially evident in the urban grain, as discussed in the case study. The

buildings on the Niddastrasse appear to conform to a certain consistent height and density, all according to Bebauungsplaene 466 and 526 (PlanAS 2015)

In London, the planning system remits of answerability or lines of responsibility and accountability ('zustaendigkeiten') of statutory authorities for the Caledonian Road area are complex. According to the new NPPF 2012, the Local Plan will be the "keystone" of the planning process (although this is yet in development), and yet at the same time the local area of Caledonian Road, especially this part alongside the international railway station transport hub, is governed by multiple authorities with much wider spatial remits. The buildings are planned by LB Islington, as far as York Way to the west and King's Cross Road to the south, the borough boundary. The highway is managed by the Mayor of London under Transport for London Streets, which includes urban realm and public transport departments. The boroughs are each about 22 sq.km and 15 sq.km, within which this area is geographical marginal – the neighbourhood straddles the two boroughs and relative insignificant at less than one square km.

**Distinctiveness, 11. Energy (node 28)**

Energy was one of the most marginal nodes of the references, relating to notions of energy consumption or energy efficiency raised in interviews.

*"Hindernisse sind dann eher finanzieller oder technischer Natur, gerade was Leitungen betrifft, die im Bereich des Karlsplatzes sehr dicht gepackt sind und die die Möglichkeiten an der Oberfläche begrenzen, gerade, was Bepflanzung angeht, was Einbauten angeht, das ist dann schwierig."*

"Further constraints then, are of a financial or technical nature; about (underground) services, which in the Karlsplatz area, are arranged very densely and therefore constrain the possibilities for the surface; for planting, for building footings, etc., that's difficult."

(translated Cowan)

Implications of planting in interview F17 – with the local area urbanist / town planner for Bahnhofsviertel noted that Urban plantings can have (positive) effects for fuel efficiency. In one of the first interviews in London (L1), fuel efficiency effects in traffic speed regulation were discussed, and the question of slowing vehicle speed limits to 20 miles per hour in high

streets (as is being increasingly implemented in residential streets) is an ongoing debate in relation to the London transport authority's aim of 'smoothing traffic flow'.

Transport for London Streets, the road/surface transport part of the transport authority chaired by the Mayor of London, maintains that 'journey time reliability' is improved by reducing congestion and 'reducing the inefficiencies caused by pedestrian crossings' by prioritising commercial traffic, especially over walking. On London bus routes, journey times can be monitored accurately.

### **Transport**

Modes of transport are significant factors in the urban landscape, particularly the railway is important, walking is not considered as a transport mode, cycling remains secondary to motorised transport in inner city streets, despite changes in policy which suggest otherwise.

Transport is very well represented in the literature – from *Manual for Streets* (MfS 2 2010), to *Link and Place* (Jones Marshall Boujenko 2007), and in the urban design area *Mixed Use Streets* (Jones Roberts Morris 2007), and *Shared Space* (Bechtler et al 2010)

Although in principle the literature says the hierarchy must be reversed with the introduction the *Manual for Streets 2* (MfS 2, 2010), Much of the guidance related to managing motoring and vehicles within the spatial constraints of streets.

### *Railway Stations*

Frankfurt Area development plan recognizes the station quarter as a distinct area, favouring the frontal area to the flanks of the station. There is a different and more severe fragmentation in the case in London's Kings Cross station area, separated physically and administratively beyond the former marshalling yards. The latter is partly an accident of urban planning, whereby the station happens form the borough boundary between Camden and Islington. Successive joint projects have aimed to reconcile the two boroughs and their planning teams.

### **Transport Modes (8 nodes)**

1 "It's a bit traffic and everything"

2 Time

3 Accessibility

4 Noise and sound

5 Pavement Parking

**Transport Modes, 1. “It’s a bit traffic and everything” (node 3)**

Transport modes emerged as a strong theme because the two inner urban cases studies in their respective transport hub areas possess a very great diversity of transport modes.

Although there is a prevalence of walking, and to some extent cycling, there are also two key issues of speed/weight of users and transfer between transport modes.

Alternative modes of transport are plentiful in these two case study sites; bicycle, buses, motor cars, trams, underground, suburban and international rail, delivery vehicles, vans and HGVs heavy goods vehicle - in German, LKW at PKW *Personenkraftwagen* personal motor vehicles and LKW *Lastkraftwagen* freight motor vehicles. In London there are terms for motorised modes of surface transport such as private cars, private hire cars, public carriages (taxis), London buses, vans and HGVs (Heavy Goods Vehicles).

There are no trams or streetcars in this part of London, as there are in Frankfurt.

While surface public transport (buses and taxis and occasionally ‘Covent Garden cycle rickshaws’) is routed through the case study street, Caledonian Road, in the Niddastrasse Frankfurt there is little surface public transport, except where the street is bisected by the *Strassenbahn* (tram / streetcar) line at Dusseldorferstrasse. Tram track is installed in cobblestoned road surface on the western part of Niddastrasse, but this is only used for turning carriage stock.

Contentious in both cases is how pedestrians are considered as users and how walking is considered as a mode of transport, which combines with most other modes. Walking can also be expanded to include various kinds of non-motorised accessibility including Blind and visually impaired walking with short cane, long cane or guide dog, deaf walking, wheelchair access etc.

Walking also combines with most modes from private motor car and taxi through to tram and train, and in the case of freight motor vehicles is often combined with freight trolley, hand truck, forklift and/or electric hoist and accessibility extends to every mode of especially public transport.



**Transport Modes, 2. Time – Daily (diurnal clock) Weekly and seasonal pattern (node)**

Time of day was identified as a theme in the analysis as the night time city and the city after hours had been raised in the interviews. One of the key themes in these inner city areas, night time activity, for which both Bahnhofsviertel and King's Cross are known, was drawn out for comment.

Not only daily diurnal cycles but also weekend timings and seasonality were identified as factors. The 'night life' pattern number 33, identified in Christopher Alexander et al's 'A Pattern Language' (Czech ed., 2010, pp192-6) suggests that cities are in need of a lively after dark culture as a positive attribute and aids them to maintain sustainability.

**Transport Modes, 3. Accessibility (node 17)**

Accessibility, emerging from the analysis, includes physical access including access by wheelchair, for blind and visually impaired and deaf people. Specific interviews addressed accessibility for blind and visually impaired users, directly represented and through an advocacy organisation, but accessibility was also raised as a mainstream issue for non-disabled as well as disabled street users. Pavement width was mentioned by a local planner; pavements should be "*schon eine Breite, dass ich mich da einigermaßen wohlfühle*" - a comfortable footway width (interview F17.1) in comparison to

*"Elbestraße zum Beispiel ist es sehr eng"* – "compared with Elbestrasse (with its brothel strip), where the footway is very narrow" (interview F17.2)

Planning consideration for promoting or prioritising pedestrian traffic, or slower traffic on the whole, "*Fußgängerverkehr - oder insgesamt auch dem langsameren Verkehr* - pedestrian traffic, or altogether, the slower forms of traffic (interview F17.3) was discussed with the planner specialising in this area.

The universal accessibility of a proposed new public convenience in Frankfurt was raised as part of a design brief (F9d.1). The accessibility of an arcade passage in the centre of Niddastrasse to not only pedestrians and wheelchair users, but also cyclists, was raised as a positive feature (F19d.2). The *behinderten Fußgänger* (disabled pedestrians) were included in a discussion with a graphic design office (interview F15c.1).

At another point nearer the main train station on the way to Niddastrasse, the relative merits of a range of road crossing options were discussed. Stairs to underpasses would be a constraint limiting crossing options for some users (interview F9d.3).

Tactile paving was discussed as a memorable feature for a non-disabled woman, as was a need for uniformity. *“Diese weißen durchgehenden Platten mit den Rauten”* – these white slabs with rutting were identified, in interview F18a.1 and they were described as *“einheitlich”* uniform (interview F18a.2)

In London, localism in disability advocacy lobbying for accessibility was raised in the form of a local disability advocacy organisation, Disabled in Camden (L4.1).

“DISC is one of those rather ‘iffy’ organisations if you like in that they are funded by the council and so to get them to say anything against the council is not always easy, it’s a compromised position.” (interview L4.1).

The service was subsequently closed in April 2014, according to the Local Authority website.

The same interviewee had had a positive collaborative experience working with a “feisty” campaigner, a person living with MS whom it was suggested was later forced by illness to retire from campaigning.

In a workshop interview in Caledonian Road, the practicalities of shop accessibility on the high street was raised, which also related to active frontages and the degree of transparency of the shop frontage, in the extent to which eye or voice contact with a shopkeeper would be possible from outside a shop on the footway.

“If you have a wheelchair - we’ll go and get a ramp. If you are with a wheelchair and you are on your own, how can you ask them?” (interviews L6a.2 and L6a.3)

#### **Transport Modes, 4. Noise and sound (node 19)**

Some interviews referred to noise. A safety officer in Niddastrasse described the street as very loud (interview F10b.1) and a receptionist at Hotel Columbus in the west section of Niddastrasse noted that there was *“viel Verkehr. Radfahrer eher weniger ab 10 Uhr, aber es gibt hier ja viele Kneipen und Pubs in der Nachbarschaft, in der Umgebung”* (interview F12.1)

– a lot of traffic, with fewer cyclists after 10 o'clock, but many bars and pubs in the area. He characterised the latter as making the area "*lebhaft*" or lively (interview F12.2).

A graphic designer at work in her office on Sunday evening suggested the noise and liveliness were part of the character of the neighbourhood:

"*Das ist eh ganz gut, also.*" Anyway, that's quite good that way"

"*Das ist hier so urban*" "It's so urban here" (interview F15a.1)

An lady in her sixties identified the tactile paving elements at junctions as having a sound function (F18a.1 and F18a.2), and she also enthused about street musicians in Frankfurt, not only for the music, but the people and their characters: *Straßenmusik, und wir haben in Frankfurt schon oftmals ganz tolle Leute erlebt* – Street music; we have really often experienced quite amazing people here in Frankfurt (interview F18a.3).

The Dean of urban design referred to noise in a practical sense, in relation to the (forbidden) night use of streets by delivery drivers due to noise disturbance (F19a.1 and F19a.2).

This may be compared to the Department for Transport's Low Emissions Zone in all of Greater London, which aims to reduce engine noise and pollution.

In London, there were many references to the sound environment, including the noise of the gyratory making it a difficult place to live (L6a.1) and even for a newly arrived international person with urban design education "Predominantly, just the sound of the cars here, nothing special except the sounds of cars" (interview L7.1). In contrast, visiting Belgian tourists described the area as quiet: "it seems to be a quiet city" (interview L11). A locally resident interviewee had heard "chanting" in Caledonian Road (interview L9.1) and a visiting transport planner noted noisy conviviality on the footway "outside the pub, they all cheered as the police car went past ... very slowly" (interview L12)

[SOUND LINK](#) 1

The interviews conducted on the Bikes Alive evening events, which were conducted with cyclists on the carriageway, in a way which might not have been possible in normal traffic conditions. These interviews were accompanied by music from a mobile sound system. But the sound environment was also transformative for one of the cyclists;

“...the oddest thing that happened, or the loveliest thing that happened when we were here the first time, when all the traffic had stopped, it suddenly went quiet and you could hear birds singing in the trees and people having conversations” (L16.1)

Another cycle campaigner reinforced the message about motor noise in the street: “Of course, if people feel safe on the streets, then there will be many more cyclists, a lot less congestion, a lot less pollution and a lot less noise” (interview L17.1) and noted the benefit of “chatting away without having to shout above the traffic” (interview L17.2)

An unplanned and unintentional interview with a street person in London in February 2012 gave an unexpected glimpse into the perspective of a person who approached me while I was recording traffic sounds in order to ask for change, in order to buy a “good can of cider”.

“I haven’t got anything....

“Nothing at all, not even a penny?”

“Lets see I have got a penny”

“Well, I don’t mind.. it gives me confidence”

“erm.. Three p”

“Three p! three p ! ... why have you got a microphone?”

“Because I am making a recording, and you are interfering-”

“Am I part of it? Well, I have to be part of it now, it’s King’s Cross”

(interview L16b).

[SOUND LINK 2](#)

### **Transport Modes, 5. Pavement and parking (node 22)**

The analysis node relates to parking and pavements rather than solely the transgressions where footways are obstructed by parked vehicles. There is a relationship in the inner city areas also to loading /unloading and to temporary, emergency or event-based parking.

The parking advice webpage for the Lion of Judah church gives a useful overview of parking in the Niddastrasse area, suggesting that rather than using street parking, there are two parking garages a few minutes' walk away in the next street Taunusstrasse, and seven further nearby parking possibilities (Loewe von Judah 2012).

There was reference to pavement parking and the prevention of it in both of the sites, although occurrences were infrequent. There were places such as the corner of Killick Street and Caledonian Road where pavement parking had been encouraged by a building owner/occupier and later stopped. In Frankfurt there was a part of Niddastrasse where pavement parking was necessary and sanctioned (interview F10).

In an interview with a planner at the city of Frankfurt, the status of public/highway parking (Parkstand) and the status of private parking (Stellplatz) was also clarified. *'Parkstand' ist im öffentlichen Raum, 'Stellplatz' ist der private Stellplatz auf dem eigenen Grundstück, oder zumindest ein privat organisierter Stellplatz.* A 'Parking place' is part of the public realm, whereas a 'vehicle bay' is a private parking bay on private land, or at least privately organised parking space(interview F17)

### **Conflict between Users (Group of 8 analysis nodes)**

The eight nodes in detail are:

1 "I don't want to be a statistic

2 (Dis-)Enfranchisement

3 Collaboration

4 Professional Silos

5 "Drug Addict"

6 Conflict

7 Diversity

8 Gender

**Conflict Between Users 3.** Conflict Between Users (node 1) – “I don’t want to be a statistic”

Physical conflict is apparently a preoccupation of public realm management and part of a risk-sensitive culture of public realm awareness in Western European cities. Safety emerged as one of the most logical themes to be found in the interviews about aspects of urban public realms. Analysis of safety and health is ostensibly one of the most important aspects and debates in (professional) street design. “Road safety is one of the highest priorities for highway and public realm professionals” (Davies 2014)

Although traffic engineering principles often focus on quantitative assessments of safety and health including the frequency of collisions in streets leading to KSI – killed or seriously injured statistics – the interviews referred mainly to the qualitative implications of safety and health in the street, or the perception of danger or health issues associated with conflicts or with environmental problems.

One aspect of safety and health was that the junctions of streets were thought of as being less safe and less healthy than links, or were commented upon by pedestrians. Cyclists interviewed on the carriageway had slightly different perspectives, explored in a few of the London interviews.

Lighting was a key factor in perception about safety, and areas that were regarded as less active, populated and hence quieter, more shadowy and lonely were regarded as less safe.

Also the history of a specific location such as a particular crossing was apparently carried over in the collective imagination as being less safe. A shopkeeper had fifty years of experience of the junction since the 1960s and remembered a fatal accident:

“Years ago, one of my customer die... At the zebra crossing. Because the bus, he stop. The lady cross, but the other car not stop, (whistles)” (Interview L13).

### **SOUND LINK 3**

#### **Conflict Between Users 2 - (Dis-)Enfranchisement (node 7)**

Enfranchisement and disenfranchisement were of interest because of the notion of democracy and participation of citizens in developing and managing the city. Whether and how this happens at a local level was explored in this analysis. There are some significant cultural differences between London and Frankfurt and between the respective cultures of community engagement and *buengerbeteiligung* (citizen participation) in the two cities and countries.

Neighbours meetings took place informally to an extent in each location, and gatherings ranging from active protest (Bikes Alive) to government-supported local project groups (Karlsplatz), and even localism initiatives under the UK planning reforms, such as The National Planning Policy Framework reforms NPPF 2012 and Neighbourhood Forum King's Cross.

#### **Conflict Between Users 4 - Professional Silos 9**

The professional silos node of analysis emerged from the first interviews, with critique from authority planners and the planning advice centre in Frankfurt showing that not only were there professional disciplinary divisions between traffic and town planning departments, for example, but also that the respective departments were now located in different parts of Frankfurt. The complexity of professional stakeholder mapping in the King's Cross case suggests a bureaucratic tangle to which some interviewees alluded, as a potential barrier to effective resolution of street design problems.

The separation of highway engineering from urban realm planning, although to different degrees, is historically established from the early twentieth century in professional systems in both England and Germany. In Germany, the different approach to planning policy as more regulation based and less than the UK is based on setting precedent and negotiating.

#### **Conflict Between Users 5 – Substance Misuser (Drug Addict) 10**

The 'drug addict' node comes mainly from Frankfurt where it is a 'landmark feature of the city – it is visually noticeable that addicts using local services and are particularly

conspicuously visible in the case study street because of specialist services in the street for them and nearby. There were instances in both case studies. In London, these street people are more broadly defined to include those surveyed by the 'Safer Streets Team' which monitors ASB - anti-social behaviour including begging, rough sleeping, drinking and street prostitution. The euphemistic shorthand term is 'street activity'. In some cases these references were also related to other nodes such as recognition and conflict.

### **Conflict Between Users 6 - Conflict (node 11)**

Conflict emerged frequently as a theme in the interviews, not only because of actual physical, verbal visual or audible etc conflict, but also because of ideological conflicts. Examples are the Karlsplatz project for Niddastrasse, where on one hand, there was institutional inefficiency and funding uncertainty and on the other hand, reluctance from some stakeholders to participate in change because of the landlords' rent increases (interview F6). Localism initiatives under the UK planning reforms were conveyed to local activists by experienced planners in the area as an opportunity, however the changing planning environment at the local borough council level led to some conflicts about whether neighbourhood planning could practically occur at local volunteer level.

The National Planning Policy Framework (2012) is criticized by Cullingworth, Nadin et al because in the process of streamlining the planning process, aspects of spatial planning such as urban design are diminished or compromised. On the basis that the principles of urban design outlined in DETR/CABE (2000) *By Design* are supposedly fully integrated into practice, the new National Planning Practice Guidance is missing these important principles. At the same time, the local Neighbourhood Forum for King's Cross has less professional guidance available on these qualities of urban design than the local authorities had previously.

### **Conflict Between Users 3 - Collaboration (node 8)**

Enfranchisement and disenfranchisement were of interest because of the notion of democracy and participation of citizens in developing and managing the city. Whether and how this happens at a local level was explored in this analysis. There are some significant cultural differences between London and Frankfurt and between the respective cultures of perceived potential of conflict and near-miss conflict between various public realm users.



There was conflict between modes of transport and uses of streets, for example between public and commercial transport, and there was also conflict between users within similar transport modes, for example between drug-addict pedestrians and non-drug-addict pedestrians in Frankfurt especially.

### **Conflict Between Users 7 - Diversity (node 13)**

Diversity is natural to inner cities, and in the interviews was coded in various forms of 'street occupations' from diversity of use to diversity of people.

Particularly distinctive about Frankfurt Bahnhofsviertel is the *nutzungs-mischung* - mix of uses -(F2) identified by the duty planner at the advice service, and on a more euphemistic level by the church worker interviewed, who is engaging in outreach with "different kinds of people" (F5). This would appear to mean that either there is an interest in diversity or there is a missionary belief in saving the 'other'.

Other aspects of culture in Frankfurt Bahnhofsviertel reflect diversity, like music. Georg, a cafe owner and musician in Niddastrasse, suggested a range from "jazz to experimental to electronic to rock and roll - *das ist alles in den anfaengen hier*" - everything is taking off here.

The planner at the Stadtteilbuero spoke of "100 nationalities" (interview F9e) in the area, with very few children with a background from an "all-German family".

The receptionist at Hotel Columbus, talking about his cuisine preference: "*persönlich präferiere Ich natürlich asiatisch* (interview F12)" – personally I prefer Asiatic, of course. This statement appeared to hint at the interviewee's own middle-eastern or Asian background.

Another Hotel Receptionist at the design hotel 'Levi's Hotel 25H' spoke of the presence of the Rotlicht viertel (interview F14) red light area as part of the area's diversity, justifying in her view also the presence of some strange passers-by, ringing at the hotel doorbell at night.

The occupier of a tiny late-night kiosk, when asked - perhaps unfairly - about the diversity of his customers, said "I don't know from where he coming. Different people is coming here and they buy something 'I'm from Russia' or from Latin America and we joking, people, different people and I know from those peoples, I know many language (interview F16).

A lady in her sixties praised the diversity of “*vielen unterschiedlichen Lebensmittelgeschäfte*” - many different grocery shops – and praised them as part of a “*multi-kulti*” (interview F18)

The Urban Design Dean at the university worded his description of the area very diplomatically and very earnestly as a “*gemischtes Viertel, da sind sehr verschiedene dienstleistungen*” - very mixed area, very diverse services offered (interview F19a).

In a King’s Cross interview, mention was made of the collection of shops at the front of the station, known colloquially as the ‘African Village’ (interview L5.1) which would be replaced in the redesign of the station forecourt “I don’t think they’re planning a lot of retail, maybe a couple of small kiosks” (interview L5.2).

Descriptions of diversity of use in the street scene included one by a new-to-London visitor; “just different kinds of shops here, and maybe some kinds of restaurants and pubs and cafes and these kinds of things. Mainly, there are the restaurants, mainly there are the shops, small shops” (interview L7.1).

A resident had a vision for the diversity and was disappointed by it lacking in her own terms: “I was thinking it could be a boutique, or it could be a thriving cafe/venue, with a little stage and some art, because we’ve got the new Arts College, and quite a lot of cultural things happening around the area with Kings Place and I just had this hope” (interview L9.1)

“Mosque on the corner, and the Cine Club next door, and there is the Portman Butchers, but I don’t know if it’s still functional as a butchers or not.” (interview L9.5) She also noticed seeing various odd people “not necessarily sex workers, but maybe begging, selling things, looking for what they can get in some way (interview L9.6 ).

The two Belgian tourists characterised some ethnic shops as strange, making an interesting distinction between tourist and immigrant and between European and foreign, describing a small shop as; “strange shops for foreign people, no? It is for immigrated people” (interview L11.3) Hastening to distinguish foreign visitors like themselves from intending migrants like those foreign non-Europeans. They were perhaps unaware that the researcher was one of those non-European intending migrants.

### **Conflict Between Users 8 - Gender (node 26)**

Gender was mostly an implicit rather than an explicit reference. The interviews were better balanced in London than in Frankfurt - in terms of the proportion of men and women and seemed to represent the diversity of gender and sexuality found in each location. There were proportionally fewer female interviewees in the Frankfurt study, which seemed relative to the groups and roles approached, and in Germany all of the respondents were gender-aware in the ways they responded in the interviews.

There was some tendency in the analysis towards emphasis on prostitution as mainly female sex workers, and this was reinforced by the female representative of Dona Carmen, the sex worker advocacy group.

In London, the gender representation of women in the interviews was slightly greater than half the interviewees, and seems partly to have correlated with the high-than-originally intended proportion of cyclists or cycle users among the interviewees.

During one interview in Frankfurt there was a question about theatrical shoes in a specialist shop and their suitability for table dancing or show performers in the adult entertainment scene, whether they could be for transvestite performers or female performers.

*“Schuhe für hetero- oder homosexuelle, oder Transvestiten*

” ... are these shoes for hetero or homosexual performers or transvestites? (interview F8d.1). This reflected the gender-flexible or gender questioning environment of the red light area more than anything else.

There was a slight majority in the numbers of homeless men over numbers of homeless women mentioned in the street populations mentioned in the Frankfurt interviews (F10b.1).

Talking about evening entertainment, a woman in her sixties said she liked to go to a club called ‘Pik Dame’ which is a famous Frankfurt Bahnhofsviertel Cabaret club. She said “bei dieser Veranstaltung gehe ich immer mit einer Freundin dorthin. Aber das „Pik Dame“ macht ja auch seriöse Veranstaltungen”... for these events I always go there with a female friend. But the club ‘Pik Dame’ also does serious / highbrow entertainment (interview F18a.1)

One female interviewee who lived near Caledonian Road in 2003 mentioned, “2003, there were still ... I would get propositioned by guys looking to meet sex workers” (interview L9.1)

## **Recognition**

Recognition conviviality is based on seeing others, whether friend or foe, recognising other people even if not a positive contact, makes for conviviality in a street, in the sense that it is occupied by people.

### **Recognition between Users 1 - Recognise Others (node 15)**

The question about neighbourliness, in the sense of being able to recognise other street users, emerged related to this being one of main research questions testing the bonds between diverse users in these inner city streets. Although they have a high density of population and a high turnover of population in inner city station-area streets, there was a surprisingly high level of recognition, even of those who may not be germane to an interviewee, or at all socially connected.

The expected connection between recognition of others and conflict in the street interviews may be conflict should be reduced between those that recognise one another. In the Frankfurt interviews there was one report of a co-worker of a church outreach worker interviewee being bashed by a known street person. This can be related to ideas of conviviality in the general street liveability literature (Appleyard 1981) and discussion in the literature about conviviality (Illich 2001 and Shaftoe 2008)

A shop keeper knew of a regular customer who was injured or killed on a nearby zebra crossing (now signalised pedestrian / pelican crossing). Combining conflict and recognition - it might be suggested that side effects of the connection between recognition and conflict may have a distancing or repulsive effect. It may be that that conflict with recognised others would be reduced or be less unsafe or stressful.

### **Accessibility**

Accessibility for all physical social and economic, mainstream disability, generic barriers to participation (ablism - “non motorised street users” DMRB)

#### **Accessibility, 1 – Emotions – like – dislike (node)**

This analysis node relates to accessible in the broader subjective emotional sense – meaning approachable, likeable, available - rather than the physical access sense. This node developed mainly to explore subjectivity about the two case study streets, about what people disliked or liked, loved or loathed. Most interviews were fairly measured in their liking and disliking, as would be normal for talking with a relative stranger. By the end of the interview discussions, preferences or predilections or dislikes often emerged. This is a fairly broad term for analysis and hence can be applied laterally in combination with many other needs.

Some of the most prominent likes among the interviews were of an architectural, environmental and spatial kind, like courtyards in Frankfurt and old buildings and quirky or interesting buildings in both sites. The presence of nature in the form of vegetation and trees featured as important in the positive likeable associations. Dislikes included ‘junkies’ – because of the ‘poor impression their presence conveys to visitors, and the spaces they dominate in the public realm’. Another dislike was derelict buildings.

#### **Accessibility, 2 – Character of Place (node 14)**

Character, mentioned above, can be distinguished from distinctiveness. Mix and diversity may not be unique but add character to an inner city neighbourhood. Strassennutzungen (interview F1.2) Street uses were cited as providing character by the duty planning advice service in Frankfurt.

The planning specialist at the Stadtteilbuero noted the character of growth which is unusual - suggesting that Frankfurt is one of the comparatively few German cities which are growing (interview F9e).

Designation as a Red Light district (F10a) a specific place character to the Bahnhofsviertel area. For the neighbourhood planner, even parking was suggested as a feature of Niddastrasse:

*Das ist jedenfalls gut für Parken* – at least it is good for parking (interview F17.1) but also the trees in one section, the traffic patterns and the campaign by residents at one time which prevented Niddastrasse from being widened.

*„Zum Beispiel haben sich die Eigentümer hier in der Niddastrasse damals schon dagegen gewehrt, dass die Niddastrasse so breit, wie sie hier geplant war, weitergeführt wird.*

*Deswegen ist die Niddastrasse heute noch in dem Bereich enger.“*

“for example, the owners here in the Niddastrasse at that time fought against the proposal that the widening you see here should be extended further along the street“ (interview F17.5) Therefore nowadays Niddastrasse is still narrower at this point.

The planner spoke about what would give Karlsplatz, a new square currently in planning, some character.

*“Um stärker den Fokus zu gewinnen, einen nutzbaren Raum zu haben, nicht nur für die Mittagspause oder als Transitraum, sondern auch als Raum mit einer Aufenthaltsqualität, in dem man sich auch als Wohnumfeld, als Umgebung für eine Wohnung, wohl fühlt. Das ist zwar sehr colloquial ausgedrückt, aber das trifft es doch schon ganz gut“ –*

“To gain greater focus, to make a usable space, not only for lunchtime or as transitional space, but a space with the quality to encourage people to dwell – where as part of a wider living environment – as context for residents, where they will feel at home. That is very colloquially formulated, but that is the basic idea“ (interview F17.6).

The character of Bahnhofsviertel is described also as traffic heavy (verkehrsreich F18a) but also characterised by short term parking in the case of Frankfurt (interview F21).

The interview with PRIAN suggested local character could be an aim: “So, using local facilities, local employment, local leisure, bringing journey distances down“ (interview L1).

There were also descriptions of character of parts of the site and adjoining realms which emphasised character. “York Way feels very secluded with lots of shady corners“ The same interviewee described the space outside Simmons bar in Caledonian Road, “It’s right next to the pedestrian crossing, and often there are people standing outside having a smoke, but there’s not a lot of space for them to do that... it ... “does add something to the busy-ness of this corner“ (interview L9).

A local campaigner in Caledonian Road noted about its character in the case study site, “think there’ll be like corner shops and a few pubs and everything, but it’s less sort of high street feeling as you get on the south side of it.” (interview L19b)

### **Transitional and Non-place**

Transitional place, accessibility and price nodes are all aspects of non-place and movement for local street users, pedestrians (cyclists pedestrians and 'non-motorised users')

Transitional Place 1- Price (1 node) *Accessibility - Transitional place - (23)*

In an interview with a cafe operator in Niddastrasse, the interviewee suddenly became animated when the conversation turned to gentrification and rent increases, and the interview wanted to make reference to his building landlord (building owner):

*“Hausbesitzer der die miete erhoecht um 100 prozent - I say it again who puts up the rent 100 fucking percent - spread it to the world”* (interview F6).

A Chinese Hotel reception cited her boss as complaining of the 1.000,- Euro per quarter paid to the city for street cleaning (interview F13) An lady in her sixties in a cafe said that real estate was becoming very expensive (interview F18).

In London, interviews with experts like the one with the transport planner used cost as a factor to reinforce technical feasibility constraints in the limitations to improving the street. There was a perception among some interviewees that simpler design changes, like removal of furniture, decluttering etc, would be inexpensive or without cost (L16).

### *Safety and Health*

The literature on the physical safety of streets is at least as diverse as the literature on the sense of security and the health implications of the street, (as I have outlined in the literature survey). One of the interviews I conducted was with the founder of the Public Realm Information and Advisory Network (UK) – who was also co-author of the UK Guide to Highway Risk and Liability Claims (ICE 2009). The latter publication refers to the need for the highway as a public realm to be liveable and attractive to pedestrians and cyclists, yet the preoccupation with risk and liability (cf. experimentation and opportunity) seems to stem

from the concern with the implicit lack of (or negative) safety and health on modern highways.

This section sets out the main findings in regard to safety and health, which because of the highly contextualised and localised approach with the interviews, seem to reach beyond the main empirical issues found in guidelines for creating and maintaining the public realm like the UK Manual for Streets (2010, p29) and the Mueller's *Staedtebau* (1979 pp238- 244) The physical-empirical safety and health of streets has an almost mythical status, with the implications of twentieth century progress, and the notion that technological progress especially increased motoring in cities, has been inevitable and positive, and that it is scientifically justifiable in terms of safety and health (like climate change). Paul Ritter in *Planning for Man and Motor* (1964) like Colin Buchanan (1958, 1962) posited the foreseeable safety implications of car-based cities, albeit Ritter wrote of his concern for the (male heterosexual) driver's safety in conflict with pedestrians "the more attractive the girl, the greater the hazard" (1964).

Mounted on a corner of the town hall in the centre of London King's Cross is a (controversial) illuminated sign announcing that the level of pollution on the highway below exceeds an acceptable level, attributing this to the "impact of vehicles" (rather than drivers operating motor vehicles), and imploring people to cycle regularly as a means to "get the fitness" of someone 10 years younger. Whether the levels of pollution or of cycling are affected by this well-meaning measure is unlikely to be measurable. The sign appeals to viewers' (including drivers') consciences to self-regulate, rather than directly affecting the capacity, speed or volume of highway traffic. Screen 1 reads, for example "Air pollution is currently elevated here."

Screen 2 reads "Vehicles impact on the health of cyclists and pedestrians." [Camden 2012] air quality data at September 2012 is drawn from Marylebone Road monitoring station until an analyser is fitted at the site (ibid.).

This safety and health node was chosen as the first to analyse, because it emerged from the interviews as a frequently-referenced theme, and as one which is often mentioned in literature of highways as public realms, tend to be dominated by highway engineering methods. [MfS2 2011 pp7-11].



Street design professionals are often faced with the pragmatic issues of ‘safety, risk and public health’ as starting points, as it was suggested by the representative of the Public Realm Information and Advisory Network , PRIAN, and co-author of the UK guide on Highway Risk and Liability Claims (ICE 2009), a public realm expert in one of the first London interviews. Although at a general level, ‘road safety’, and awareness of the safety and health effects of streets as public realms are recognised statistically, like the psychological effects of the perception and social reality of safety in the street is often raised in the literature, it is argued that some of the concepts here in the findings here are under-reported in the literature.

In a section regarding blind people in shared space’, this thesis discussed accessibility and the specific safety and health issues of access for people with disabilities (including blind people) and the struggle for a shared sense of a liveable public realm in the inner city street– this informed my interest in this node. The public realm for blind and visually impaired people seems fraught with safety and health challenges, borne out in all manner of potential pedestrian-cycle conflict, of architectural dangers of the street (Kremser ) the detractions of shared space including the ineffectiveness of tactile way finding in shared space for guide dog using blind people (map of safety and health concepts of the street in the literature and in the interviews).

### **6.17 conclusion to analysis**

Following this discussion of the meaning of the results related to the literature, we now discuss the significance of the themes of the findings.

The interview findings are set out in terms of research questions for this study: How can the design of streets, (in case studies of inner-city mixed-use streets in two western European cities - Caledonian Road, London King’s Cross and Niddastrasse in Frankfurt Bahnhofsviertel be guided and orchestrated, in order that design outcomes better reflect the needs of diverse users at all hours?

The interview sample addressed this question by including some of the intermediary stakeholders in these processes and many of the findings have implications for design process, especially where the definition of design extends to urban interventions in subtle or invisible forms.

It was discovered that local users (rather than agents) in the interviews expressed relatively little feeling of personal responsibility with regard to engaging in making change to the streets they use; they seem to feel as subordinate parts of bigger spatial systems.

Localism, where it exists in the London and UK, seems to operate on a larger scale (complete districts of streets or city areas) and there are few examples of neighbourhood forums of the type being developed in King's Cross.

At the immediate scale of the street, however, some spaces were identified as having potential for improvement, including the 'All Saints' site and the Tesco corner in Caledonian Road (south). The two way traffic has been implemented, but is not without controversy as further discussed in chapter 7. In Frankfurt, potential spaces for improvement were the *passage* - a walk-through passage in Niddastrasse, and also the Karlsplatz, adjoining Niddastrasse. Users suggested improvements which tended to be visual – environmental ones like greening, lighting, surface quality, de-cluttering etc. Street design would need to capture these requirements as part of the design process. Users understandably tended to look to public authorities to maintain and to initiate change to street design, rather than themselves seeking to be directly involved in executing changes. Online participation was not mentioned. One interviewee pointed out, the cleaning of the street is a basic level of expectation of the city management, in return for paying taxes and rates (interview F13).

Some unexpected forms of (strained) neighbourly relations were seen in ways which reach far beyond the Jane Jacobs 'eyes on the street' concept in the street design and management literature. The Safer Streets Team, with CRI in Camden (one of the two boroughs the London case study straddles) plays a role in managing or monitoring what it called 'street activity' in the form of begging, touting, dealing illegal substances and rough sleeping. The church at Niddastrasse 52 (interview F05) expressed their targets prosaically in their Facebook.com social media campaign press release: Wow, already three saved – we will easily reach our target of 80 by the end of the year – "*WOW - bereits DREI Errettete - wir werden das Ziel von 80 bis zum Jahresende locker erreichen !!*" (Loewe von Judah 2012)

*"Mit menschen zusammenarbeiten, viele Charaktere, viele geschichte..."*

“Working with people, many characters, many stories...” Sigrid the security guard explains for a TV documentary what appeals about her job where she has worked for fifteen years managing street activity for the shopkeepers in the Bahnhofsviertel. A quotidian, tedious and sometimes strained neighbour relationship is illustrated in Sigrid’s example in the TV documentary (ZDF 2012) habitually deals with junkies, alkie (drinkers) and others in the street, continually ‘moving them along’ for the reassurance of customers in the streets. In the Bahnhofsviertel, businesses strengthen their control of street by engaging private security personnel to patrol their street and to manage some of these diverse people.

Interest in improving the street environment, among lay interviewees, focused on visible and tangible design-oriented changes rather than invisible engineering changes.

In Frankfurt, the proposal for a (junkieproof) public pissoir gained popularity. Such visible and symbolic alterations to the street architecture may have captured people’s imaginations because they see potential for citizens and visitors to behave in a more civilized way in the street. In both case studies, distinctive place as a visibly recognisable quality is one which would be sought after.

This analysis has set out to address the question, 'How does street design for the day time relate to design for the night time – in terms of both user perception and the process of transformation or adaptation?' and also 'What are the interdependencies and relations in street use between different times, days and seasons?'

The analysis set out to consider Day and Night (and Quotidian and Noir urbanity): How does street design for the day time relate to design for the night time – in terms of both user perception and the process of transformation or adaptation? What are the interdependencies and relations in street use between different times, days and seasons?

The interviews on site took place at many different times of day and night and in winter conditions which enabled consideration of different diurnal and seasonal qualities such as the time of lighting up at dusk or the water in the street in relation to walking or traffic conditions.

While interview respondents were -in the main- neutral or positive about the ‘evening trade’, ‘night life’, ‘and adult entertainment’ aspects of the case study areas, which lend

them noir character, many users mentioned they had some fears for personal security late at night and took steps to address this. Banal evening commerce such as late night convenience stores Tesco and the kiosk in Niddastrasse seemed to enhance the sense of liveability after dark.

In Frankfurt, the Bahnhofsviertel 'Noir' character, provided by the special (distinctive) mix of brothels, swish designer hotels, creative businesses and drug users on the street, is particularly noticeable at night. The glamorous-tacky lighting of the *Laufhaueser* in Elbestrasse – love hotels where supervised paid sex work is condoned – appears to celebrate Frankfurt's evening economy.

In King's Cross, a fine line is taken with the architectural expression on the street of adult bookshop, strip clubs and health clubs-cum-massage parlours like 278 Caledonian Road (Convery et al 2012). The architectural expression is often so restrained as to be invisible.

Interdependence between the (adult) night-time economy and the mainstream day-time economy involve manifold aspects, including freight and public transport flows, parking and loading, (conflicting) user groups, entertainment in diverse forms and also architectural-environmental issues such as noise, lighting and legibility. Shared-space street lighting design schemes for public realms at night is a developing aspect of street design, like tactile way-finding and other aspects of shared accessibility for non-motorised users at night. Interviews suggested that transformation of these post-war legacy streets would be incrementally slow, especially in the economic context of austerity and post-financial-crisis recovery period in Europe.

There is an exciting mix between the daytime / mainstream users and the late-night and marginal users. For example in Frankfurt bankers in business suits eat lunch at Mian Mian Chinese restaurant near the facilities for substance users very near a brothel strip.

An example of ambiguity was a mysteriously-lit anonymous shop front at 2am on a Friday morning at 92 Caledonian Road (sign seen on Thu 15 Nov 2012– "Closed Sundays"). These diurnal activities can be placed on a wide graded spectrum, domestic, commercial, light industrial, home office craft workshop.

The overall picture - in which there is a balance or symbiosis between these activities, events, cultures, subcultures or spontaneous occurrences - is key to the diurnal (day and night) functioning of these mixed use urban realms. Their distinctiveness in these respects could be enhanced, but generally it seems from the interviews there is less evidence of interest in walkable street design for the night time, except purely for safety. The annual pop-up event *Bahnhofsviertelnacht* however presents a model of how event-based walkability and liveability at night can take the city quarter creatively beyond into new inner urban territory.

In the interviews, evidence emerged of tangible cultures of user participation in grass-roots development of either street, with developing models for this type of user participation, perhaps parallel to the authorities version of 'consultation delivery' as a form of tick box community approval. In King's Cross London, there was the long struggle of a nascent neighbourhood forum since 2011 and its committee forerunners, and campaigners and activist groups like Bikes Alive.

In Frankfurt Bahnhofsviertel, there was the *Stadtteilbuero* (local district office) with its Karlsplatz project, and the religious NGOs like Loewe von Judah (Lion of Judah), Diakoniekirche (Community Service Church), and Dona Carmen (Prostitutes Union) all uncomfortably co-existing through the annual pop-up event *Bahnhofsviertelnacht* ('Railway Station Quarter Night' block party).

## 6.8 Initial Findings

As discussed, six themes have emerged from the analysis, which each engage with the literature through the case study experience. Among the 28 individual findings identified as nodes in the interview information, the main themes were grouped into six areas; distinctiveness, conflict, recognition, transport modes, accessibility, and transitional place.

### 6.8.1 Distinctiveness

The qualities of place in both Frankfurt Bahnhofsviertel (Niddastrasse) and London – King's Cross (Caledonian Road South) were developed by interviewees, both on site and by the design professionals and agency actors interviewed. This distinctive character was one of the most prominent features in the analysis and is critical in the definition of the scope of

the analysis of the streets. It reinforces the urban design and social qualities which make the respective places what they are, as defined by users. These factors are often at variance with highway engineering which works at a city wide, statewide or nation-wide scale and applies street design as a network or system rather than a distinctive locally place-based response.

The qualities were perceived more than expected – the urban heritage and architectural characters of places including the architectural ‘mistakes’ like Vaultex Caledonian Road and the Karlsplatz electricity substation and *bauluecke* (gap) in Niddastrasse. The ugly landmarks make distinctive places too.

### 6.8.2 Transport modes

The case study streets have abundant transport modes, yet each could benefit from slightly more walkability and *aufenthaltsraumcharakter* – liveable quality; the first requires recognition of and working with walking as a significant mode of transport. Walking as a priority – as a conscious rather than default choice - and as an intermediate journey segment or transitional transport choice. The latter requires more attention to the street as an urban living room, where various properties and street events can contribute to and play a part in the complex composite.

### 6.8.3 Conflict between users

Although conflict is common and is managed as an inevitable and acceptable aspect of mixed use inner city areas, there are many ‘neighbour’ relationships to manage in the public realm and in these cases, the levels of conflict vary from very low level issues like avoiding walking past certain people on the pavement to occasional more dangerous conflicts as identified in traffic safety terms, such as cycle-HGV lane sharing or pedestrian-cycle lane or space sharing.

The ‘neighbour’ relationships can be tense and negative, as well as those that are comfortable and cheerful, and occur differently at various hours of day and night, week days and seasons. The dysfunction is managed by public and private interests in each case and may alter in the course of the processes of local area regeneration and community development.

#### 6.8.4 Recognition between users

Conviviality and recognition relationships between sharers of a street space are significant as identified in Appleyard's late 1960s study of residential streets in San Francisco (1981). An example of a negative form of recognition and strained or abusive relationship in the 'neighbourhood' is one where the church worker got a black eye (email communication 30.4.12). Less dramatic and a gentler relationship of mutual harassment is the example of security guard Sigrid and the crack pipe user depicted in the 2012 documentary *Banker Bettler und Bordelle* (ZDF 2012). Recognition is a subtle key element of the human function of the street and in street design and seems to be missed by transport planning despite Appleyard's work and Hart's reconstruction of the study in Bristol in 2008 (Hart 2008).

These roles have always existed and are independent of the passing vehicles occupying the street temporarily.

#### 6.8.5 Accessibility

Physical accessibility and 'universal' accessibility of streets involves a detailed understanding of the experience of street users in the space between the public realm and semi-private realm. The legibility of shop fronts and urban spaces was mentioned as important – including how they may be used. These access issues were identified as critical aspects of the ways people use street spaces. Traffic signals and (road) signs are mostly unsubtle and didactic way finding indicators, often detracting from more subtle place characteristics like architectural surfaces and details. The accessibility of the streets and spaces adjoining are key to vitality and diverse human activity. Accessibility can be broken down into permeability and legibility as much for non-motorised as for motorised users of inner-city streets.

#### 6.8.6 Transitional place - gender politics, especially in adult entertainment

The transitional quality of place is dominant in public highways, seen as through-routes rather than means of access to local destinations.

Dwelling in place is economically beneficial where pedestrians, cyclists or motorists stop, linger, park and dwell, consume or transact in the street as a constructive contribution to the street. The two case study streets are liminal parts of town centres and of major surface (and underground) transport interchanges.

### 6.9 Conclusions to the Analysis

With these clear themes identified from the process of analysis, we turn to the discussion of the thesis findings. Besides the previously discussed conventional methods of urban analysis in the case studies, the sound-recorded interviews, many on site, were found to be valuable in the process of identifying 28 nodes for the analysis, and in identifying six main groups of findings. From this analytical frame we now turn to a more discursive frame to consider these findings in the light of the four research questions which the reader will recall as identified previously; how street design is orchestrated, how the diurnal cycles of the night and the day affect street design, the quest for balancing or reconciling the qualities of place with the movement and link function of streets, and whether any of the processes and outcomes of street design might emancipate or provide insights for those involved.

This process of qualitative analysis by interpretive constructivism is brought back to the main research question, of “how can street design be improved by accommodating a more diverse set of users?”

The analysis found that that the interview outcomes and responses elicited a very wide and heterogeneous range of nodes and that these offered some ways to expand the possibilities of street design beyond the scope of what was identified in the extant literature. We turn to the discussion which expands on the themes elicited from the analysis of the interviews in particular.



# discussion

# findings

7

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

## **Discussion of the Findings - Introduction**

An analysis and an initial discussion of the six findings themes was set out in the preceding chapter. Six themes, extracted from the analysis through the case study research, were developed and are further elaborated upon in this discussion chapter. The themes were addressed to the research question of how street design might accommodate a wider range of users. It was also investigated how a better understanding of street design and the uses that streets facilitate could be employed. It investigated the significance of night and day, along with how to balance the quotidian and the *noir* aspects of street design, how to approach balancing movement and place, whether in practice this can be done, and how these understandings might change and emancipate diverse users through street design.

This discussion chapter is now structured around the six themes, addressing aspects of the research questions in each case. These are followed by discussion of other emergent themes which have emerged as findings including the *noir*. A section follows about the comparison of the two case studies in relation to the different management regimes, and what was gained from the comparison looking at good practices.

The chapter is laid out by first setting out a review of the research questions and then applying these research questions to the analytical themes.

## **Research Questions**

The findings related to researching 'How can street design better accommodate a wide range of users' will be discussed, followed by the findings related to researching 'How can street design agents understand the range of functions that streets accommodate?'

The research question in more detail inquires about the implications of the findings for movement and place and findings for daytime and night time occupations.

We have briefly considered the development of the research questions and now we turn to the six themes and the research further develops the ways in which these themes respond to the research questions;

### **1 distinctiveness**

### **2 transport**

### **3 conflict**

#### **4 recognition - conviviality**

#### **5 accessibility**

#### **6 transition**

The findings chapter compares London and Frankfurt and the findings in each case study.

#### **Good practice**

Potential for the exchange of good practice between London and Frankfurt is explored.

Areas of good practice which can be identified here are site-based field working, engagement of community, collaboration, decluttering and working towards shared space process, a “discursive planning process” (Schmidt in Bechtler et al 2010, p 75 transl. Cowan).

These good practices are discussed comparatively at the end of the present discussion chapter.

In addition to the relevance and meaning of distinctiveness, conflict, transport, recognition, accessibility, transition for different user groups.

These are followed by accessibility, urban design and engineering, sound and noise and then the methodology of street design.

The impacts of different management regimes as contexts for street design in each case are compared in a final comparative section of the discussion.

This thesis argues that the social and physical place and movement components of street design have to be carefully unpicked in order to expose the ‘wicked’ problem of orchestrating and calibrating the design of streets in inner city areas. An engineering-based approach to empirically analysing movements and spatial allocations alone is insufficient to develop the brief for an accessible walkable public realm in the urban street. Equally, urban design analysis does not sufficiently account for transport function. The complete street in the inner city and station area is required to operate temporally at night, acoustically and sensibly. On a subtle level beyond highway engineering, using architecture and urban design thinking, we can consider even where these temporal, sound and sensory factors are enigmatic, dubious or questionable.

#### **1 Distinctiveness**

Streets can be designed to be distinctive for a more diverse range of users including those

who occupy them - slowly - and make them more vital, by considering the architectural and urban design qualities of streets as part of the shared urban public realm, their distinctive spatial qualities and distinctive acoustic and audible character.

**distinctiveness** *Findings for movement and place:*

In these case studies, it was found that distinctiveness of place relied on more place quality and slower movement. The method required dialogues or interviews with street users and these were mostly carried out on site.

The Bikes Alive cycling event occupying the gyratory with cyclists captured the sense of the ludic or playful city which Stevens describes in the Ludic City (Stevens 2007) and was attended by a leading public realm activist who was instrumental in the campaign against criminalising Critical Mass cycle rides in the UK (Press Association 2008, Interview L17). A temporary event, it was tolerated and facilitated by the police at a time prior to the criminalisation of the critical mass cyclists at the 2012 Olympic Games (Malik 2012). The police appear to have allowed Bikes Alive as a harmless event, but unfortunately after the events of July 2012, the ludic spirit of the street in London was dampened.

A ghost bike memorial placed to honour the cyclist killed at the junction was moved prior to the Olympic games and the VIP lanes. Although the ghost bike was moved in consultation with the family and friends it was never returned to the prominent position at the centre of the junction.

A general knowledge and understanding in the community about streets as valued local places would be a great help to ensuring they are developed by local communities as thriving business areas. Even conducting the interviews seems to have stimulated some of the interviewees about the idea that the environment has a distinctiveness worth developing. The ongoing correspondence with two NGOs in Frankfurt - the *Loewe von Judah* church and the *Doña Carmen* prostitutes union - suggest that each of the people involved are keen to develop their outreach work in suitable ways for their distinctive environment (Pers Comm). In London, a recent meeting with a TfL engineer responsible for redesigning the dangerous junction, who is also one of the interviewees, there seemed to be a recognition that there is something special about this place.

Distinctiveness of places is one of the most important findings – in the context of the two case studies, the stakeholders educating one another, new and established residents, visitors, workers and also professional agencies, about the diverse understandings of the distinctiveness of the place – is key to better orchestrating street design in complex inner city areas. Diverse stakeholders need to be heard and an understanding developed about what makes the place special or distinctive. Frankfurt Bahnhofsviertel is distinctive from The Westbahnhof area in its character, as London's King's Cross neighbourhood is distinct from the Euston or Victoria station areas; the former walkable, the latter is accessible in minutes via the Victoria Underground Line. Listening and sharing knowledge applies especially in inner city station hubs where there is a diverse range of levels of interest in distinctiveness, from the international transit passenger to the long term resident. Time is needed to appreciate this distinctiveness.

Night time entertainment and noir entertainment might be better developed and curated or managed in these station areas at night, so that they can be more distinctive and viable and enjoyable for stakeholders while managed in relation to neighbour compatibilities through a scheme such as the Purple Flag scheme for promoting night life establishments.

## **2 transport**

Inner city streets can be designed to accommodate a wider range of users by providing legible and convenient proximate access to a diverse range of transport options, especially off street and non-motoring options.

The history of the motoring in the city in the twentieth century discussed in the literature has meant motoring has dominated by default and often unconsciously, to a point which is not easily overcome by reversal of the hierarchy of street design with the pedestrian and place as the most important.

It seemed from the research that excellent transport accessibility should be better understood in order to accommodate it in street design, and also that goods transport needed to be adapted for the inner-urban context, with a form of differentiated freight delivery logistics.

Transport choices are clearly already important to occupants, but the street in the station area accommodates a wide range of transport from private to public and from short distance on foot to long distance with heavy loads.

Transport at night is made easier for loading and deliveries and for parking. There was a view among cyclists that heavy transport deliveries at night or at other than peak hours would be safer for commuter cycling (L14, L15, L16). It was observed in London that the late closing hours after 11pm were used for large lorries to deliver to a supermarket. On the continental European road network, there was a suggestion a few times that Frankfurt Bahnhofsviertel was a recreational stop for long distance lorry drivers, for entertainment and sex, although this phenomenon was not readily visible. Street parking for business people was not observed as a distinctly recognisable phenomenon in either case study, and in Frankfurt ground level gated entranced concealed parking garages for offices above. Resident and hotel visitor parking demand was observed in Frankfurt more than London, and in the latter there was also a car-wash which attracted limousine and private taxi drivers to the area.

### **3 conflict**

Streets can be designed to accommodate a greater diversity of users by recognising conflict as a necessary and constructive part of the ways in which streets facilitate a wide variety of uses. Conflicts can be a useful part of establishing human community and difference and expanding the quality of place in the street beyond the lane allocation to different transport modes.

Benign conflict between users of the street exists and needs to be acknowledged and accommodated as part of the station quarter character, if not more generally of the inner city and as side effect of the evening entertainment areas. Other-than-benign forms of conflict must also be carefully managed as normal part of a free public realm. Of the forms of conflict discussed in the interview analysis, many were benign, from near-miss collisions, and some were subtle forms of avoiding contact or concern for others. For example the receptionist at Chinese Conference Hotel in Niddastrasse would cross the road to avoid walking past a potential substance user, and she felt embarrassed for her Chinese Hotel Guest visitors seeing "those people" (Interview F13).

Conflict between modes of transport is not readily resolved, as referred to above in the coroner's report, suggesting cycles and lorries do not mix (Coroner Mary Hassell in Merrill 2013). Heavier fossil fuelled vehicles have tacit priority on the carriageway unless physically constrained by design elements. In order to de-brutalise the atmosphere of the street, slower smaller delivery vehicle options and vehicle parking should be promoted in the station area streets, and ultimately this would improve networks of walkable access ways to stations. Filtering out large vehicles physically with barriers would force visitor vehicles to adapt to the local environment, and the traffic would self-regulate, by driver re-routing, except for public buses and trams. Conflict between non-motorised occupants of the street, especially on the footway, was found to be mostly benign, and a predictable aspect of the areas studies. It would be increased in the proposal in the London case study to cut cycle ways into the footway, and have a very negative effect on liveability and walkability at the station and in the station area, especially for visually impaired pedestrians and wheelchair users. Fewer carriageway lane allocations and vehicle-oriented signage, along with a clear and simple distinction between footway and carriageway – without the additional confusion of cycling as a third category – would make the area most liveable.

The conflict between street users is sometimes specific to times of day; peak hours or compressed use of carriageway space and sometimes crowded pavements at peak hours. In general the night hours seemed to have a more relaxed atmosphere than the day time especially peak-time hours of traffic. Some of the cycling advocates felt that avoiding peak-time may reduce conflict. It was observed (and supported in the PERS report 2008) that peak time made the pedestrian environment more conflicted in London. In Frankfurt Niddastrasse, the conflict was mainly psychological between staff on the street and members of the street population (Interview F13, Interview F14, Interview F15).

#### **4 recognition and conviviality**

A wider diversity of users can be accommodated in design of streets by considering accessibility from a mainstream perspective, accommodating barrier-free access as well as providing subjective accessibility - attractiveness and transparency for a wide range of street users.

Recognition between users does occur in movement, in a way which is completely independent of the street as a specific place but related to a transport place. It was observed on Caledonian Road one-way system that Heavy Goods Vehicle (HGV) operators collaborate in the confined inner city street space, allowing one other access to a banked queue of traffic on Caledonian Road, allowing one another to change lanes or to adopt a road position to facilitate turning a corner. However, the conviviality between smaller and more vulnerable users and pedestrians and cyclists should be prioritised, according to the principle of reversed hierarchy with the pedestrian at the top. Given the physical weight of the vehicles at the lower end of this hierarchy, a great deal more than transport policy change or a Highway Code is needed in order to change street the ways streets are occupied.

Recognition and encounter on the footway and in the façade zone could be distinctive to place in the way described in interview with the prostitution unionist, referring to a place where street sex workers use the narrow part of Niddastrasse near Weberstrasse to encounter kerb crawling customers (Interview F21). Beggars sitting outside Tesco on Caledonian Road is another example observed in participant observation.

Groups in the community, as well as neighbours can be encouraged, so that local neighbourhoods will develop a sense of belonging together. This latter may even apply to opposite types of people co-existing peacefully. Some of the interviews suggested an empathy or sympathy with unfortunates sharing a neighbourhood (Interview F08 and Interview F15) and still others engaged for other reasons, from evangelism to opportunism (Interview F05, Interview F21). At an everyday level, the coffee meeting held in the Niddastrasse were a way for recognition between neighbours to be developed and this clearly had an emancipatory role (F06, F18).



Recognition by different social groups is specific to times at night or different times of day, as was mentioned through the interviews. In Frankfurt, interviewed street users had adjusted to expect to see certain groups at certain times, for example the "junkies" would come to the *Café Fix* in the evening. In London, a shopkeeper clearly knew many passers by, and friends popped into the shop regularly. Given the very long time in the area, the shopkeeper had also seen accidents including his customer knocked down on the adjacent crossing (L13). The shopkeeper's wife however made the crossing "many times a day" over 50 years so his example seemed more of an indication of the very wide range of customers-friends who frequented the shop and experiences over a long time (L13). Another interviewee felt it should be easier to cross between crossings (L6).

### **Accessibility.**

Accessibility is important for the non-motorised human in the station area, whether walking or wheeled, and including users living with disabilities or with access challenges, and this accessibility ultimately benefits every user as well as the environment. Accessibility also depends upon knowledge and understanding about accessibility of local occupants and visitors to the street. The critically important issue is working with accessibility from first principles; the interviewees each had specific expectations and needs for accessibility, Interview F11 and Interview F12 walking safely past substance misusers, F14 cycling at night, L03 avoiding guide dog and cyclist conflicts, L09 finding contraflow cycle routes, and so on. No two of these access requirement profiles could be processed out of context as a simple guideline without careful listening and analysis. What separates this finding from a platitude is that accessibility needs to be internally not externally defined. As the CABA Spaceshaper user interviewee asserted (L10), public realm designs should begin from first principles.

It can be suggested that accessibility for smaller and more vulnerable individual street users in these interchange areas should not be sacrificed for the benefit of (motorised) congestion reduction – in the station areas, congestion in vehicles should be expected as self-regulating. Managed congestion for pedestrians should be acknowledged, exploited and celebrated, as it can be a positive aspect and part of the essence of convivial urban experience.

### **6 transition**

The research found that the edge condition - marginal or liminal - and the experience of passing through may be better exploited in smaller and more agile forms of occupant like pedestrians and cyclists. The availability of interviewees to assess and discuss the environments in both case studies suggest this would be possible for professionals to do similar. It might be therefore considered whether necessary transition through the space as link only for practical reasons between two places should be minimised.

Having dealt with basic urban design process and methodology, and with balancing movement and place, a question which underlies all other questions of the city, we turn to somewhat enigmatic aspects of the urban environment, first the temporal and then the ways in which the environment is understood and becomes a learning basis for identifying and emancipating local communities and groups.

The edge condition makes the secondary or 'back street' in a railway station quarter a less obvious part of the urban fabric than the station square or its immediate frontages, being at one remove. However, the balance and complementarity between the primary and secondary thoroughfares is highly significant. The permeable urban grain and the space between these two makes the 'back street' an essential and complementary component to the first impression gateway space, and gives the neighbourhood a thicker urban quality, with diversity of use and diversity of occupation which make the area more liveable and distinctive, improving sustainability.

The problem of scale at King's Cross gyratory is that the Gyratory System is overlaid on what is (or was) the town centre, and is a kind of place, rather than only a traffic node system. The process of the 'consultation' for a town centre road scheme in King's Cross (called the gyratory review ) held an "objective setting exercise", which cost £10,000 in consultants fees, with a slow response from TfL, and has led to a very disappointing outcome in the sense that the so called "objectives" are not measurable, achievable or time-limited. This can be partly attributed to the inability of the Mayor's agency TfL to work in a place-based manner, overriding both Boroughs of Camden and Islington and their respective highway departments, but instead to develop the King's Cross Gyratory improvement scheme as one among a batch of gyratories or a batch of strategic traffic nodes in London.

The transition through the area by vehicles at night is discouraged (but difficult to enforce) under the 'environmental areas' classified mainly for noise reasons near residences. Kerb crawling is a form of predatory behaviour where vehicle drivers have power over pedestrians, and this was referred to in some of the interviews, especially in Frankfurt where the east end of Niddastrasse is on the edge of a 'red light' area (F21 see also Langer in Benkel 2010, p.203).



Fig. 7.1. Aerial orthophotograph Frankfurt Top) and London (bottom) (Bing 3D)

Both at a scale of approximately 1:5million @A4

The discussion reflects on how the thesis responds to the research question. Firstly, the thesis identified the space to develop the literature, by describing the gap in the street

design literature between highway engineering and urban design or *staedtebau*. There is a gap in the ways the literature is applied in street design, and a gap beyond the space between engineering and urban design of inner urban streets at all hours, notionally described as the *noir*. In the methodology chapter, the thesis described the development and application of a constructivist-interpretative research methodology, and a set of mixed methods for this research, especially for the two railway station areas studied, Frankfurt Hauptbahnhof and London King's Cross. Following preparatory research pilots and field work, and building on the researcher's experience of the two sites, new primary research was conducted in Frankfurt and London between 2009 and 2012.

### **Liveability**

The liveability of inner city streets as places is under threat as the environments become unattractive to people – even the well-populated, established and diverse inner city streets of Western European capitals are suffering from domination by noisy, polluting motor traffic and underuse for the human activity for which they were initially intended. A shift of political attention toward vote-sensitive residential areas and toward fringe growth areas is part of the reason for neglect in the inner city where uses mix more; rented office and commercial tenancies, denser rented housing. Inner city interchange places – railway station areas – have been sites of declining liveability over the last century. Urban decline has coincided with modernisation of buildings and streets, and displacing industrial use, particularly after the movement to make inner cities motoring-friendly after the second World War. As argued in the literature review, still more recently, since the global financial crisis, the agenda for regeneration of urban place, at least in central London, has been replaced by an agenda of 'keeping the economy and traffic moving'. In this sense, movement is defeating place.

The literature has developed to aid in the management and improvement of streets and streetscapes. Beyond two dominant directions of engineering and urban design in the streets literature, a critical third direction of *noir* literature was described. The twenty first century street design guidance literature is increasingly consistent in promoting the broad theoretical principle of "reversing the user hierarchy in favour of pedestrians" (Mfs 2 2011, p7, and Jones Boujenko Marshall 2007, Scotland 2010). On the continent, a parallel trend towards sharing space (Bechtler, et al., 2010) has been developing within rule systems in

various countries. In some places on the continent, this has begun to address the freedom taken from pedestrians in the twentieth century motorisation and mechanisation of streets. The *reversed hierarchy* of design for occupying the street reflects a new politically idealistic highway engineering consensus about how streets will become more humane and liveable. However the road traffic engineering profession is inherently tied to the motoring environment being unchanged in the process of retrofitting liveability. The processes seem for the non-engineer to be unhelpfully complicated, obscured and shrouded with professional and modelling software jargon. Streets and Roads as defined in Chapter 2 are not differentiated.

### **Hierarchy Principle**

The reversed hierarchy principle may be applied more easily to the design of new streets than to retrofits. Walkability, liveability and conviviality, as discussed in chapter 3 on methods, are complex urban metrics. However, they frequently still seem beyond the scope of modern highway engineering, which in the example from the previous paragraph, focuses on "value of delay", which suggests roads are not a public realm but a business. Certainly the network management affects business, and "delay" on London's Network of Interest (9400 links making up 2930km) was valued at £1.6 billion in 2006 (TfL 2006 p.10). Street design depends on nuanced design considerations rather than merely the simple pedestrian-at-the-top hierarchy. Cycle highway engineering has made some progress in London (Masters 2013), but by joining transport engineering, seems at odds with public realm design.

The new street design guidelines, including the UK *Manual for Streets 2* (2010) and NYDOT (2ed. 2013), and to some degree the German *ESG* (2011), the *Empfehlungen zur Straßenraumgestaltung innerhalb bebauter Gebiete*, or 'Recommendations for Street Design within Built-up Areas' (trans. Cowan) expand on previous versions, specifically aiming to better apply to mixed use inner city streets, although without focussing on inner-city railway station areas. From an urban regeneration and development point of view, railway station areas are like town and district centres in their own right (Bertolini and Spit 1998, pp. 11-13) and station areas have the potential to be developed as definitively liveable town centres within the city. Yet stations are often treated separately from the surrounding areas. The challenge is for stations and their contexts to be understood integrally, as a continuous

conglomeration of parts of an urban public realm. Railway stations are interchange locations integral to urban centres, and yet are often considered as places unto themselves. Some stations become inward-looking, as isolated miniature shopping centres.

In King's Cross, London's St Pancras station and King's Cross station are an example. St Pancras station is disconnected from the established shopping parade opposite to it at 119-149 Pancras Way, due to the design of a street environment which makes it almost impossible to traverse between the two places. The station entrance is near the white van in the centre on the photograph Fig. 7.1, below. Policy guidelines from the *Manual for Streets* 2 – for reversing the hierarchy with the pedestrian at the top – seems to have had no effect here.



Fig. 7.2. St Pancras International Station, left, and 119-149 Pancras Way shops, right



7.3 Red line on aerial photograph shows the approximate location of the former Handyside Footbridge, at top, photograph looking south down York Way, 2012 (adapted from Google 2014).

On 1 January 2013, Network Rail ‘expired’ (dismissed) its long-standing planning agreement with the community for a replacement public bridge across the station from York Way to Midland Road (Murray, 2013). The rail operator argued that the former public bridge from York Way to Midland Road had been replaced by a private bridge inside the station for passengers to cross the tracks within the ticket line, accessed from the front of the station.

On the south side of the two stations, the neighbourhood is severed by the Euston Road A501 the traditional inner ring road, despite the opening of a new station squares in front of each; St Pancras’ has been adopted as a parking area by a hotel and King’s Cross Station square separated by bollards from the Euston Road. The experience of the wider station area *interchange* environment, specifically that part in the public realm and highway beyond the perimeter of the station, falls under the purview of three highway authorities in addition to Network Rail. The area or neighbourhood legally ‘belongs’ to or is in the remit of different groups landlords and authorities with responsibility for its care.

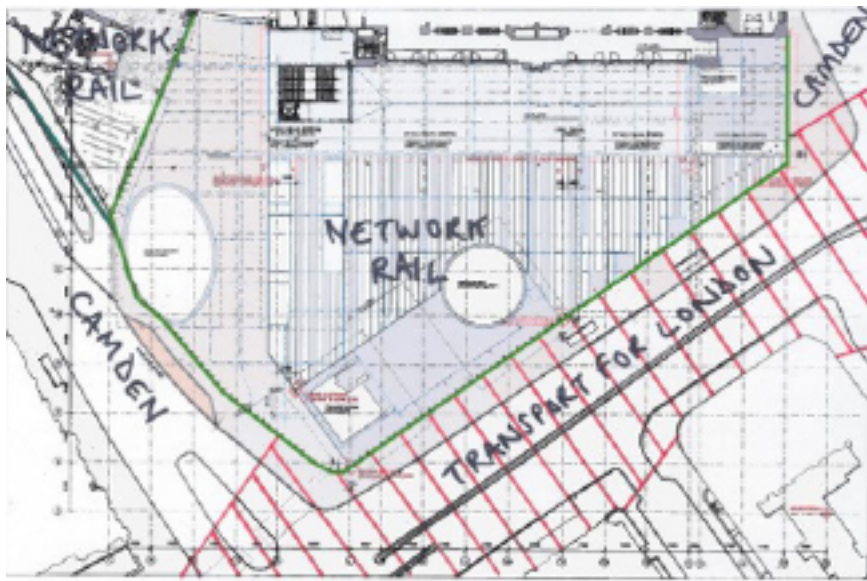


Fig. 7.4 Hand-drawn sketch by Stefano Palizza under Freedom of Information Act request 9 Jan 2014

The ambiguity of territories is part of the attraction of the city street as a public realm; its diversity, the spontaneity of when and whom one may meet, and the multiple viewpoints of users / occupants co-existing there, even the possibility of abandonment or the risk of transgression. These qualities of the street still depend upon spatial qualities; occupation of streets by people, accessibility, transparency, permeability and legibility of streets for these people, sometimes with vehicles, and the surfaces; highway, carriageway, footway, facades and (open) ceiling of the street and its tactile and acoustic qualities.

Some of the many research photographs of Niddastrasse and Caledonian Road show deteriorated space and potential spaces for improvement. Niddastrasse at the junction of Karlstrasse, where the square 'Karlsplatz' is being regenerated, has a very high quality road surface and highway line markings for motorists. Highway signage, roadside parking, loading bays and bollards are also plentiful, but the junction is difficult to cross for pedestrians, especially in the context of the German highway rules, which like in many continental European countries and the USA, legally forbid pedestrians from crossing the carriageway anywhere other than at a controlled crossing.

### Frankfurt



Street elevations with photographs from Google StreetView and Sketch-up models were compiled for both case study sites, as described in the methodology, as background information for the research. This also uncovered questions about some sites and spaces mentioned in the interviews such as the narrow eastern part of Niddastrasse discussed in the interview where kerb-crawling was discussed.



Fig. 7.5 (Part) Street Elevation, Niddastrasse (collage from Streetview by the author)

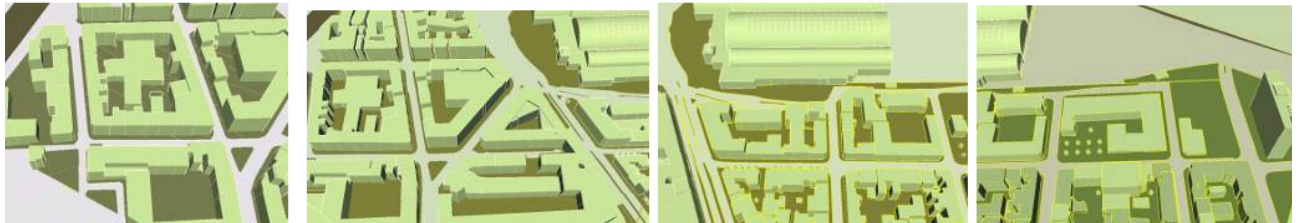


Fig. 7.6 Model Niddastrasse (Collage of model views by the author)

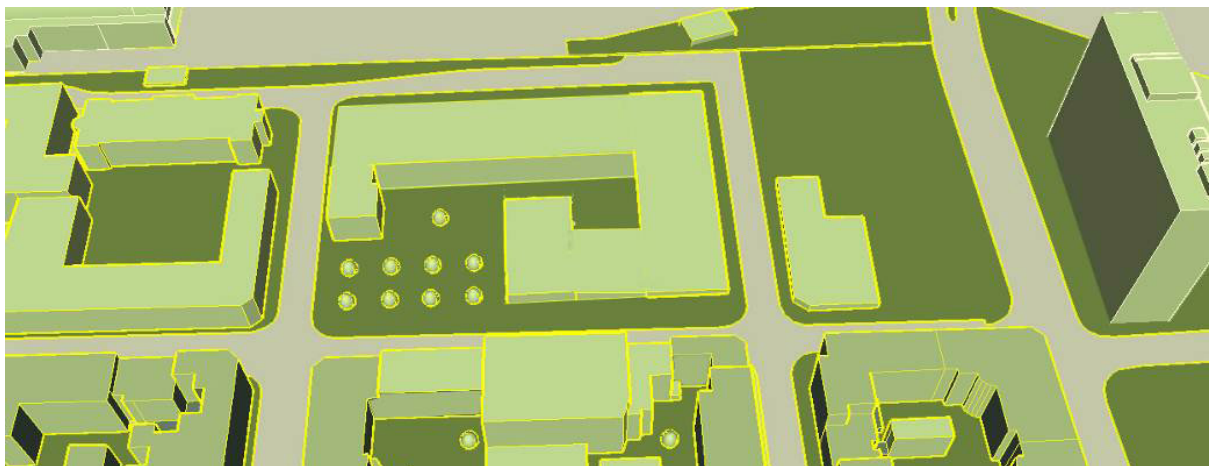


Fig. 7.7. Model Niddastrasse, showing the Post Office tower at right, with Poststrasse perpendicular to Niddastrasse. (see also Appendix 1)

The proposals for Karlsplatz, altered since the interviews with some of the agencies concerned, and still subject to uncertainty, were published in 2012. Meanwhile, some images of the proposal for the western end of the Niddastrasse were published in the architecture media, and on the websites of the designers concerned. The design of the

street in this location, shown on the architectural illustration, suggests that liveability or *aufenthaltsraumcharakter* however was not a consideration. The planted balconies of the 2011 drawing and public green space with mature trees portray an optimistic promise of nature in the inner-city, but the proposed footway environment goes from being very austere in the 2011 drawing (left) to being almost inaccessible in the 2014 version (right).



Fig. 7.8. Habsburger-Karree 2014. The image is from the architects' website, Gross and Partners (2014) but was not built.

The public green space seems to be almost inaccessible to the public and the façade elevation on Hafenstrasse (junction with Niddastrasse at left) is very austere – certainly a blank wall does not lend itself to human interactivity (Image Source: Gross and Partner nd c.2014). The name *Habsburger-Karree* - Habsburger Complex - refers to the medieval history of the first Habsburg to be king of Germany, appointed 1273 in Frankfurt. The proposal was subsequently replaced by a simpler building.

Meanwhile the work at Karlsplatz does not appear to have progressed beyond drawings.



Fig. 7.9. Niddastrasse, Karlsplatz in context (see Appendix 2 Niddastrasse North Elev. See appendix)



Fig. 7.10. Niddastrasse, Karlsplatz (Photo G. Cowan, 2011)

In the case of Niddastrasse, there is a marked discontinuity of the walkable space for pedestrians between segments of the street, for example between Niddastrasse 55 and Niddastrasse 57. Although Karlstrasse is very wide with four lanes, as a one-way link, pedestrians and others can wait for a lull in traffic to cross between signal sequences 'upstream'. As noted in the *Frankfurt Gestalten* community participation website, there is a need for improving the environment at Karlsplatz (pictured at right). The three sided square shown in the plan of 1889 (Schomann 1988 p.78) was never really a place and was damaged during World War 2 (Schomann 1988 p.291). The long-standing problem of public urination is also linked with the regeneration project for Karlsplatz which was awarded to *Bierbaum Aichele Landscape Architects* at the end of 2012, and is expected to begin in 2014. The original proposal for a public toilet as part of the scheme, technically problematic given the plumbing services requirements and management implications, had been removed in the publication in November 2012 (Wilche-Weichbrodt 2012 p. 2). The theme remained prominent in the community participation website *Frankfurt Gestalten* (Design Frankfurt, transl. GC) shown in the Niddastrasse case study, chapter 4. An art display vitrine (*Kunstvitrine*) is featured in the artists' impression of the scheme published in November 2012, built to conceal the transformer station. The article states that an operator-manager-occupier is still being sought for the vitrine.



Fig. 7.11. "An art vitrine will be a feature of the new Karlsplatz" (Wilche-Weichbrodt 2012 p.2, photograph by Bierbaum Aichele Landscape Architects, Competitionline 2013)

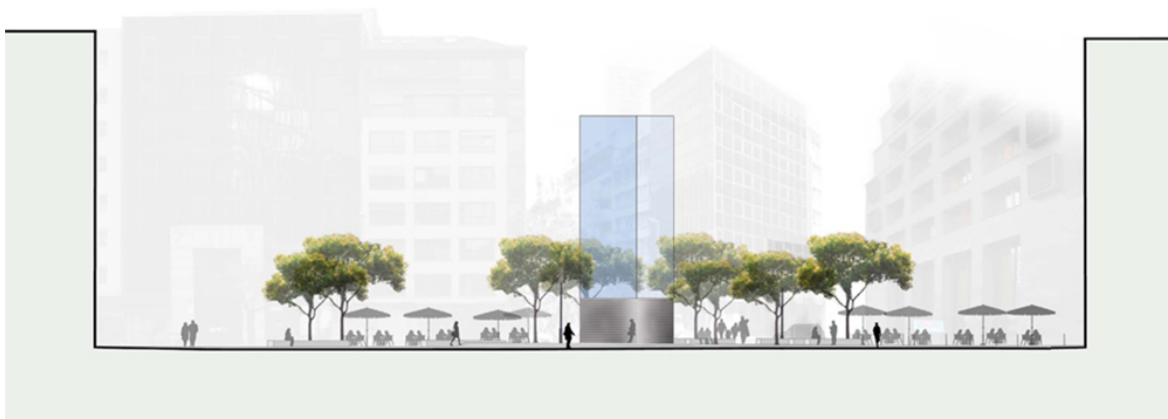


Fig. 7.12. Section by by Bierbaum Aichele Landscape Architects, (Competitionline 2013)



Fig. 7.13



Fig. 7.14 Competitionline 2013 <http://www.competitionline.com/en/results/129442>

A trade journal's review of the Karlplatz proposals by Bierbaum Aichele Landscape Architects notes that the station area vicinity has created a focus for Frankfurt's urban development for some time, with state funding in 2004-2005 dedicated to converting commercial space to housing, creating 300 additional dwellings. The area is in demand for creatives and artists, with many new bars, cafes and restaurants, and for residents, the adjacent public realm quality is an important aspect of the liveable neighbourhood. Aufenthaltsqualität – 'liveability' is sought, with "more generous pavements and squares, and new planting". The regenerated Karlsplatz and the proposed vitrine will remain difficult to access from the western 'sac' of Niddastrasse, the so-called 'Niddasac', across the four-lane highway of Karlstrasse leading northwards out of the centre from the Hauptbahnhof. However the island will be better connected to the south, the station side, and the livelier boulevards of the station quarter.

The conclusion is that the public realm will be slightly improved within the difficult constraints, but with little compromise to vehicle traffic speed or volume or to parking. The stakeholders interviewed may consider this an improvement to the area, whether or not it works well acoustically and at night.



Fig 7.15 Niddastrasse (centre lower left to upper right), which remains difficult to cross at the junction with Karlstrasse as shown with the dashed red line (Open Street Map 2014).

On the Frankfurt participation website, *Frankfurt Gestalten*, the discussion in 2014 appears to be of what one commentator or participant finds unsatisfactory temporary measures:

*“Der Magistrat wird aufgefordert, der Verwahrlosung des Karlsplatzes entgegenzutreten und Folgendes zu veranlassen:*

- 1. Das Trafohaus auf dem Karlsplatz benötigt dringend eine Renovierung der Außenfassade,*
- 2. die leeren Blumenkästen sollen wieder bepflanzt oder entfernt werden,*
- 3. das Plastik-Urinal soll wieder entfernt oder eine andere Möglichkeit von Pissoir angeboten werden.*

“The Council is requested to intervene against the desecration of Karlsplatz and to attend to the following:

1. The transformer Station urgently needs renovation of its exterior façade
2. The empty flower boxes should either be re-planted or removed
3. The (portable) plastic Urinal should be removed or another form of pissoir allocated.

(Frankfurt Gestalten 2014)

An entry on the same website in January 2015 suggests progress should be made on the Art Vitrine project (Frankfurt Gestalten 2015).

## London

### *Caledonian Road*



Fig. 7.16 Caledonian Road Killick Street and Calshot Street (Photographed by the author in 2012) – room for improvement

The junction design in the middle of Caledonian Road case study, shown in a photograph in Fig. 7.12 (Caledonian Road, Killick Street and Wharfedale Road) reflects a didactic approach to allocating space, and represents a microcosm of the complicated ‘traffic engineering based’ approach to the urban environment. Working the design around a forest of posts, pedestrians and cyclists are confronted with signage and infrastructure indicating they should use their allocated place as elements of traffic, street users rather than people at the core of this local environment. Each transport mode has been allocated kerbed space by engineers; cycle, wheelchair/pedestrian ‘lane’ with tactile paving for blind and visually impaired users and the roadway with marking as to where to look. The local landmark building adjacent, *The Driver* public house, with ‘living walls’ landscaped by Patric le Blanc, is barely noticeable amid the visual noise on the highway. This photograph also shows an evening when the pub is closed.



The pedestrian (and cycling) environment conceived and modelled here as a form of (non-social) environment for managing risk for the more vulnerable street users. As environmental design it suggests a fundamental methodological flaw in transport engineering for street design, a complete lack of lateral thinking, holistic thinking and simplicity which should be a basic expectation of a pedestrian- and walking-oriented public realm. Since the mid-1990s, physicist Helbing's research has showed that pedestrians behave unlike vehicular transport, as cited in TfL Pedestrian Modelling Guidelines (Smith and Blewett 2010, p 141). Further work done by Helbing (1997, 2001) and other pedestrian behaviour modelling specialists Clayton, Urquhart and Kerridge (2007 STAR conference) find that "pedestrian movement.. is not amenable to mathematical modelling in the same way as road traffic. Individual pedestrians are notoriously difficult to monitor at a microscopic level. This has lead (sic) to a lack of primary data that can be used to develop reliable models"(ibid.). Although the options of video surveillance and infra-red tracking of pedestrian trajectories are discussed, the scientists, like TfL, do not discuss the option of talking with street users, or walking through the crossings themselves.

Data on pedestrian trajectories is collected to "develop a model of the way pedestrians move through space" for simulations using artificial intelligence in software environments. Pedestrian dynamics are studied to facilitate pedestrian movement and to encourage pedestrian movement as a mode of transport in its own right, for example through the development of the *London Pedestrian Model* (Clayton et al 2007 p.1-2). A collaboration between *Transport for London* (TfL) and the *Central London Partnership* (CLP), commissioned the consultancy, *Intelligent Space Partnership* (ISP), 'to develop a model of total walking volumes for every node on the street network in Central London' (Desyllas et al., 2003). This arose from the (then) Mayor's Transport Strategy (GLA, 2001), where a key aim was 'to make London one of the most walking friendly cities for pedestrians by 2015.' Besides the good intentions of the GLA and former Mayor of London to make London "walking friendly", the use of desk-based mathematical modelling rather than socially based field work seems unnecessarily engineering dependent.

In practice, the lack of desk-based analytical data on pedestrian behaviour led to the agency omitting of pedestrians as a consideration in the junction review process in Kings Cross (Personal Communication, 2012). The possibility of counting pedestrians in field-based pilots

or of speaking to local street users are not part of the usual procedure and suggestions in this direction were dismissed out of hand. The TfL *Junction Review* process, part of the Mayor's *Vision for Cycling* (2013) is confidential and by invitation only. It is apparently a different vision from that of London's Metropolitan Police, which temporarily criminalised cycling to manage traffic during the 2012 Olympic Games (Richards 2013).

The researcher's enquiry about PERS assessments, simple pedestrian counts and applying TfL's own 'Valuing the Public Realm Toolkit' in the centre of King's Cross were answered by a contact attending the Junction Review meeting via a telephone call to the researcher. It would not be possible to take pedestrians into account (Personal Communication, December 2012).

The case study streetscape in Caledonian Road is comparatively less austere as a space than the part of the Frankfurt case study example near Karlsplatz, as illustrated above in Fig. 7.3. One-way traffic dominates the southern end of Caledonian Road. The junctions provide signal controlled crossings for pedestrians to cross, and in addition there are two zebra crossings. Informal crossing is often possible, but on a surface which is not aesthetically suited to pedestrians. As a mixed priority and strategic 'red' route, the design and the signage are vehicle-centric and utilitarian, suggesting fast motoring is the priority in the space. Reduction of the 'highway signage' and narrowing and changing the roadway surface would make a difference as would the lighting design. At present some properties at the south end operate late hours but there is no civic programme to manage this like a *Purple Flag* scheme, an evening entertainment-focussed town-centre management scheme which has worked well in the adjacent evening entertainment centres of Upper Street Angel and Camden Town (Purple Flag 2014).

Meanwhile, although British Town Planning has had a Town Centre First Policy for several years, with much attention to high streets, there is a shrinking city phenomenon in continental Europe (Frech and Reschl 2011), which is affecting the physical environment of towns with the types of inner city streets which were once considered sustainable and architecturally worthy.

For example, a campaign called *Wandelbares Oesterreich* (Changeable Austria – for the politicisation of architecture in Graz) recently claimed that: "With the deterioration of city centres, particularly at pedestrian level, important parts of the public realm are lost! At the same time, out-of-town shopping malls and 'big sheds' are promoted, and subsidised with taxes" (transl. Cowan) (2013).



Fig.,. 7.17 Salomon, M / *Kurier* Newspaper, Austria 2013 'Holiday Greetings from Austria'

An ironic Holiday Greeting Card from Austria suggests the street life in villages which attracts tourism is disappearing. Space allocation of the public realm reflects safety and speed factors associated with motor vehicles.

The public realm has a predominant allocation of space to driving, which can be considered as local, city-wide, regional and international. Although Niddastrasse itself is mainly used for parking and local movement, it is crossed at both ends and twice in the centre by large multiple lane arterial roads. The dominance of the larger and faster vehicles crossing on longer distance journeys makes the experience of walking – let alone wandering – along the length of the Niddastrasse a rather fragmented and uncomfortable experience, given the clear priority of fast moving machines. Offices, shops, apartments and gaming and entertainment venues are mostly closed to the street. The sound environment is not one of human conversation and nature, but has a rather austere empty canyon ambiance, with the occasional hollow roar of passing motor vehicles, the latter having been given a visually clear environment within which to dominate.

As outlined in the literature review chapter, there is a distinction between the highway engineering and traffic engineering approach on one hand and the urban design approach on the other hand which takes a broader socially aware view of the street as a place. An alternative third approach, as discussed in the Literature Review chapter, is that there are

invisible and intangible elements which are frequently overlooked in the other two approaches. These include sound and the underground or unseen aspects of what is happening in streets. Some of the aspects relate to the *noir* – the unmeasured things that occur in the street at night, underground, concealed behind screens or otherwise invisibly. The social nature of the street has already changed with GPS based technology on the phone and using hand held internet-based networking and cruising applications for socialising (Landovitz, et al., 2012). Such applications facilitate social networks related to the "adult shopping" in *noir* city, similar to the way GRINDR facilitates peer to peer contact in the 'Young Men having Sex with Men' community in Los Angeles described by Landovitz and colleagues in their urban epidemiological study. A specialist app *Frankfurt BHV Nacht Puffguide fuer Männer* (2013) 'Frankfurt Railway Station Quarter Brothel-guide for Men' (transl. the Author) - is part of a local guide App which gives detailed information on the *Laufhaeser* (Love Hotel / Brothel).

**Returning to the research question:**

"How can streets be designed to meet diverse user requirements?"

The new professional literature, including the UK, New York and Germany Street Design Manuals for cities (MfS 2 2010, NYDOT 2010, and ESG 2011) shows that street design has become an established and professionally recognised and supported discipline, especially in the last decade. Although the street design process is allied to urban design, as discussed in the literature review, its literature is more strongly influenced by highway engineering, which works on streets as movement systems, rather than as collections of places. The crushing of a cyclist in King's Cross and the actual density of the street occupations in real situation there make the diagram of *Visibility Requirements* in 10.2 of Manual for Streets (2010 p.75) look theoretical. The new thinking about the reversed hierarchy of streets is a gesture towards liveable urban places, but is still based on an engineering and engineered systems approach to vehicle space. The emphasis is on the road visibility for vehicles. The underground and the invisible elements of inner city streets, including the *noir*, are not readily understood within this movement systems framework.

The design and planning of streets are well established in the context of road engineering design for vehicles (DMRB), but 'street design' as a collaborative discipline struggles to be

distinguished from either highway engineering or urban design, as Stephen Marshall has characterised (Marshall 2005, p 7). The street as a space is significantly constituted by links, more than only junctions, and the public realm function of streets and ambience is important rather than urban design of surfaces for footways and highways as engineered movement corridors. Transport for London's Streetscape Guidance (2009) and the Pedestrian Environment Review System (PERS) for which local campaigners in King's Cross fought so hard to have applied, only to have the result ignored in junction review, are largely confined to surfaces, safety and technology.

The principle of the inverted hierarchy has gained currency in the UK in the literature, and is promoted in MfS 2 (2010) and *Link and Place* and in a different way in Germany's ESG (2011 pp 10, 15, 23); street as "spatial experience", the street as a "historical document", and "spatial perception" of the street in built up areas (transl. Cowan 2014). The theory of inverted hierarchy has had minimal effect in the case study areas; there has been little transfer from the talk to the walk, from the desk to the field.

The fear in local planning authorities seems to have been that only strict 'pedestrianisation' –the prioritisation of pedestrians if not the complete exclusion of vehicles – would be enough to assert the importance of pedestrians and cyclists over motor vehicles occupying streets. This is evident from the reaction in the interviews to the mention of shared space, which interviewees seem to have taken to mean pedestrian space or pedestrian priority zone. In Frankfurt the (old) inner city shopping street 'Zeil' is such an example, and in London it is the very expensive project for Exhibition Road, Kensington (Bechtler et al 2010 p 79 – 81) and in comparison the modest but internationally famous shared space benchmark Seven Dials in Covent Garden (Bechtler et al 2010 p 78). There are also traditional shared space environments like parking forecourts, mews, and lanes (Baillie 200

In station interchange areas shared space or a pedestrian zone is a possible approach, but public transport and private vehicle accessibility, private car parking seem to prevent wholesale 'pedestrianisation'. Reducing speed limits to 15mph or 20km/h is difficult to 'implement' in practice as a purely physical measure, because of limited 'enforceability' and prohibitive 'infrastructure costs'. In London, Transport for London junction design engineers even insist on placing a two-lane default 30mph link directly at the entrance to a single direction single lane 20mph link managed by a local authority (TfL 2013). This is even after a

cyclist was killed on the spot and TfL escaped Corporate Manslaughter charges (Perrin 2013). A perplexing fear in policymaking in the London case study can be inferred; that lowering speed limits, vehicle sizes weights or access times might affect journey time reliability for public transport and commercial transport.

Reduced traffic speeds improve urban environments in multiple ways including safety, sound and ambiance, yet enforcement by traffic police or CCTV technology is expensive to implement, and politically sensitive. Adapting the physical environment (infrastructure) is also expensive, given the relative invisibility of the effects of improved street design on liveability and conviviality. Mainstream street design practice seems to fear that sharing space is an extreme physical measure which is unlikely to be effective, and London's recent major schemes for Exhibition Road (Schabel, Bauwelt 2012) has been reviewed as less effective than similar ones on the continent – Schouwbergplein, Rotterdam (ibid), Bern Railway Station (Hamilton Baillie 2010), Vienna's *Mariahilferstrasse* or Frankfurt's *Rotlintstrasse* in the inner residential suburb *Nordend* (Bechtler et al 2010). Street design environmental and process issues associated with *shared space* – although becoming accepted increasingly in residential areas – were still highly contentious for inner cities.

The possibilities of street design for night time entertainment areas for example, where heavy goods vehicle on deliveries might share streets with intoxicated pedestrians are as yet uncharted territory. The tradition of *städtebau* in German-speaking Europe is a helpful model at least in the different professional practitioner role, between architect and urbanist, expanding the possibilities of spatial planning of streets. The street is regarded as a component of the architecture of the city, and the city architecture is a space as well as a system. "*Städtebau* deals with the spatial order and design of the environment, in urban as in rural contexts" (Reicher 2013 p.4, transl. Cowan).

The *Städtebau* discipline's approach to the architecture of the city as spatial ordering and design is more germane to the idea of shared space streets than the traffic engineering approach, based on an elemental analysis of traffic modes, even when pedestrians are included as a socially modelled element of traffic. *Shared Space*, approached from a highway engineering perspective, is a great challenge in inner city areas such as railway station areas,

if they are considered as complex transport systems. The approach from a broader design and urban design perspective is that station areas are ordered and designed spaces.

The latter seems more appropriate to an architect, but in the London case study, the station area is controlled by the Mayor's transport authority, and urban spatial and design approach seems not to be in harmony with that agency's understanding. The long evolved *Place Shaping Plan* (Camden and Islington 2012) may legally be overruled by the transport authority leading the public realm regeneration.

The research found that there were some tensions and differences between the roles of architect in the process of street design and highway engineer in the process of street design, according to the public perception from the interviews and the professional roles in the respective case studies in Frankfurt and in London.

According to the continental model of architecture and *städtebau* education as an urban spatial ordering and design situation, the highway is regarded as an urban space, which is governed by rules and guidelines, although the pedestrian is legally subjugated to traffic. In the separated model of architecture and planning applied in the London case study, highway planning is a system for movement and the space, but is contested by local users of the street, who desire better access and greater amenity in the street as a public realm.

The orchestration of the design of streets can be improved from the current practice; from the engineering based principles of the Manuals MfS 2 (2010) and the ESG 2011, and also beyond the cultural *Principles of Shared Space* (Bechtler et al 2010). The limitations of designing streets using both engineering principles and urban design principles can be exposed by considering the intangible aspects or uncanny qualities of streets. These include the sound, the hidden qualities in the dark at night or under the ground. In this under-researched area of urban realm and street design, this research has begun to expose, albeit in a limited way, some of the intangible issues which need to be investigated.

### *Sound and noise*

The negative impact of urban noise on city living was already identified long before the motor car with Arthur Schopenhauer's complaints in 1844 about the "infernal sound of whip cracking (Donald 2010 p 31) and the Viennese *Anti-Ruepel* (anti-rowdy) campaign (Donald 2010 p33). In 2005, Raimbault and Dubois describe the complex and developing 21st

century noise problem as part of an urban soundscape, whereby "a simple decrease of noise level or the elimination of noises is insufficient to account for urban environment improvement" (Raimbault and Dubois 2005).

One of the main findings of the research has been the value of a process of listening to people – both in sound and in content. The primary first hand listening on site in the field work was central to eliciting the findings, developing a deeper understanding of place by probing beyond a visual and superficial observation of place. Semi-structured listening also provided additional unexpected background information such as the recording (unexpected interview) with the beggar in King's Cross ("3p.. gives me hope" 120206- 005) and supplemented by documentary information from journals video and broadcasts, including Angela Saini's programme *Thinking Streets* (Saini BBC 2013).

The listening in this research went beyond detached observation, to participant observation which involved engaging with people, connecting with them in a genuine way, and with an understanding that interviewees were investing their time to contribute with a fair expectation that something might realistically be improved. This was one of the unanticipated methodological findings, which is associated with constructive interpretivism approach discussed in Chapter 3, and with the participant observation field work in Girtler's ero-epic dialogues (Spetsmann-Kunkel, 2005).

#### *Busking and street activity*

The locations of informal occupations such as beggars sitting outside Tesco (Caledonian Road) or approaching the researcher in the street, or as documented by SST, the *Safer Streets Team* administered by the local authorities through the *Crime Reduction Initiative* (CRI), vary at time of day and night. In the London case study, the researcher found in the regular walkabout audit tours with the SST that the location of "street activity" detected varied from week to week, but that there was a surprisingly high level of recognition of the individuals involved. The outreach workers claimed they know most of the people involved in street prostitution and dealing and begging and the hostel locations where some were periodically staying.



Busking was observed to a limited degree, although there were newspaper sellers and other informal street workers and begging pitches found on the sites. Busking appeared to gravitate towards the foot traffic around railway stations, where impromptu busking pitches were observed on several occasions and also legitimate and 'licensed' busking pitches are provided at both street level and below ground within the London Underground ticket cordon.

Street entertainment has become an increasingly regulated and planned part of street occupation in London. The Borough of Camden has introduced busking licences in 2013 for public streets, requiring 1.8m clear passage and certain conditions to be observed (Camden 2013). The licensing policy does not apply in Caledonian Road, which is in the Borough of Islington, but buskers west of the York Way borough boundary are required to apply and pay for a Street Entertainer licence if using amplification. Entertainers in the station square appear to have avoided the licencing issue using the ample open space there and the ambiguity of the boundary location, along with the overlapping remits of Met, Transport and local police to claim innocence, which would be more difficult in the context of Camden High Street in Camden Town, away from the edge of the borough.

Street entertainment would be an area for further investigation and development in both railway station areas, where the demographic of visitors and local residents would be responsive and the music scenes – the University and performance venues in King's Cross, and the Music Store, Gibson Room and entertainment venues in Frankfurt - in each respective area would be conducive to busking.

In the Green Sky Thinking workshop for the London case study on 6 May 2011, interdisciplinary colleagues participating in the research workshop collected a wide range of observations about the study area in Caledonian Road including some observations about the noisier uses of the area including activity in the small hours of the morning. These contributed to a wider understanding and soundscape survey of the area and demonstrated techniques which are not being employed in analysing or designing streets at present, such as assessing the acoustic audible environments from an aesthetic and artistic point of view or considering the noise pollution associated with moving motor vehicles on the mixed priority routes. As noted previously, these case study areas are less likely to be regarded as

'stress zones' as found in the City of Westminster Soho entertainment district, where sound disturbances at night were observed at well over 100 DbA (Roberts and Turner 2005 p).



Fig. 7.18 Yazaki Shigeshi "In the shadow of Pleasure, a Ginza Sighting" (1928) reproduced in Prakash (2010) p. 199

Picture of shamisen player from *Tokyo Puck*; suggesting that the grotesque 'family' of street musicians depicted in early modern Tokyo represent a disturbing paradox. Buskers and music and exciting spontaneous and diverse street life attract one to the city, but one expects to see healthy reflections of ourselves, not some rustic and raggedy-dressed poor people coming to the city to make money.

Contrasting with the unsettling noir experience of the grotesque street performers depicted in *Tokyo Puck* discussed in relation to the noir literature, street performers are licensed and institutionalised in the London Underground system since 2014. A system called LU busking scheme was introduced for 'quality control' within the underground network in 2002 (Busking London 2015). Above the surface, the borough of Camden was, until recently, the only London Borough where busking did not require a permit. Despite protests with prominent musicians and performers in November 2013, a permit scheme and curfew were introduced in the borough of Camden (Gibson, 2013).



Fig. 7.19. Busking Pitch at King's Cross station (Photo by the author 18 Feb 2014)

Signposted Busking Pitch below Euston Road in the Metropolitan Line platform hall where the author has heard a range of performance including one of Berimbau, a tribal Brazilian instrument. A month later, the sign was gone.

## **2. How can street design balance movement and place? Literature**

Balancing movement and place in street design is professionally well known in the English language literature, not only in *Link and Place* (Marshall Jones Boujenko 2007) but in the professional guidance from CIHT, *Manual for Streets 2* (2011). The history of the street shows a balance between movement and place or coexistence of movement and place existed long before motorisation with other wheeled vehicles. Since the post-war trend of segregating the public realm into motorised and non-motorised domains has declined, and liveable coexistence attempted, inner city streets have been under the greatest pressure for transformation. While ring roads and strategic traffic arteries are regarded in practice as sacrosanct for the ongoing function of inner cities, railway station areas have developed and modernised. Bertolini and Spit (1998) described their rise and their role in city regeneration

in many European cities. A decade and a half later, station areas have become strategically more important international passenger terminals, within liveable mixed use areas, flexible live-work areas and vibrant entertainment and tourism centres. Place quality needs to adapt accordingly to these as effective town centres.

The research found that place distinctiveness, transport accessibility and social factors all play roles in people's desires for the case study streets, and tension / conflict, transitionality and accessibility may all be factors in improving the liveability of these streets.

The movement and place literature relative to railway station areas suggests spaces around or adjacent to railway stations leave room for improvement as interchange space. This view can be widened to a district planning perspective rather than a directly localised curtilage focus. Just as the hierarchy of the road users but communal and public transport - in London including taxis in bus lanes – above private transport, so it might be considered whether the railway planning, given the passenger capacity involved, take precedence in urban terms of footfall, over roads.

#### *Methodology of street design*

The two Case Studies found very different problems of balancing movement and place. The London case had a great deal of movement, and there were relatively minor points on the street where a dormant sense of a place could be revived (in the form of a square or a place) at Killick Street or at the junction of Caledonian Road and Balfe Street, near Caledonia Street. In the case of Niddastrasse, the strong elements of disruptive traffic movements were perpendicular to Niddastrasse, in particular at Karlstrasse and Duesseldorferstrasse. Interview dialogues suggested that within strongly separated sections, each section the street worked well in its own isolated way. The cul-de-sac worked as a calmed space, the banking end near Weserstrasse for parking – the town planner in interview said he would "go there because it's often easy to find a parking place" (Interview F17). It was observed that the luxury hotel at the end of Niddastrasse closer to Ottostrasse and Rudolfstrasse was also popular for parking, and while distant from the red light area, was observed to be used by street workers at night. Although the term shared space was not mentioned, the simple co-existence of occupancy his street afforded suggests a stable and peaceful balance of link quality and place quality.

## Noir

Public urination is one manifestation of *Urban Noir* in Niddastrasse which is being mapped by citizen participation in planning website 'Frankfurt Gestalten' (2014). Other forms of Noir marginality include the presence of street people, and expressions of disgust about people in the street during the interviews. Other benign forms of noir may be buskers – and informal employment including busking pitches and begging pitches including *Big Issue* newspaper sellers.

*Mapping participation* In Niddastrasse, for example, four reports to the local authority relating to the corner of Niddastrasse and Elbestrasse were made via the community participation website Frankfurt Gestalten, shown as blue pins on the Open Street Map below.



Figure 7.20 Blue Map Pin indicating report of 'Hinnahme des Urinierens – seit Jahrzehnten – ohne aussicht auf änderung' (Frankfurt Gestalten 2014) Tolerance / acceptance of urination – for decades – no sign of change (transl. the author)

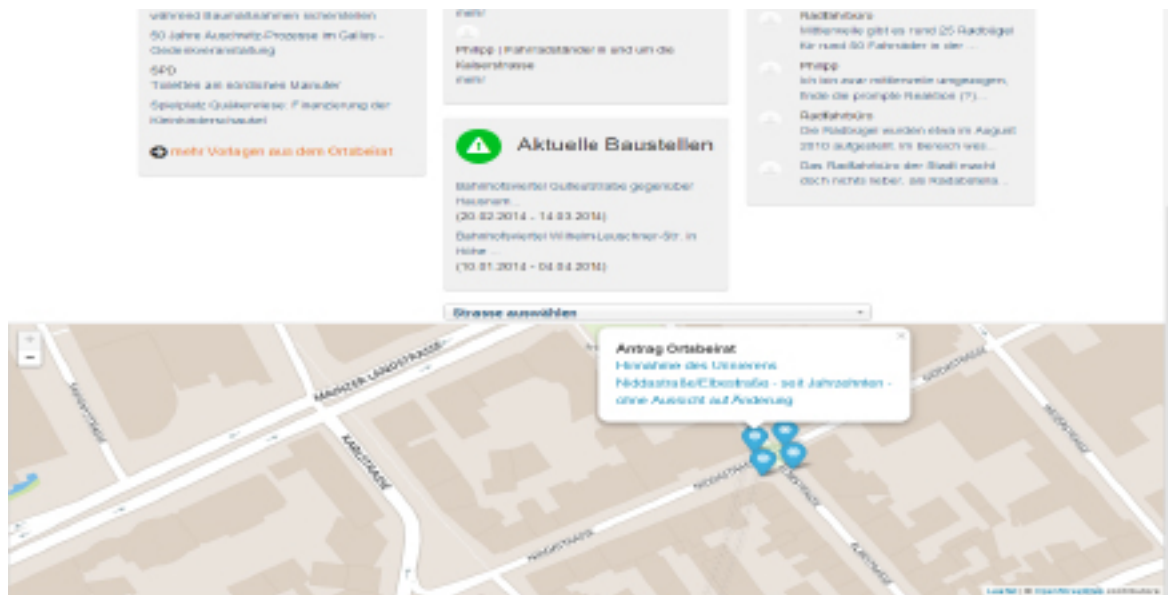


Figure 7.21 Blue Map Pin indicating report of 'Wildes Urinieren' (Frankfurt Gestalten 2014) Random / public urination in the area (transl. the author)

### What can street design agents and users learn from streets?

#### Literature

The literature reviewed spans a range from specialised professional guidance to broader democracy building literature, much of which incorporates the principles of prioritising pedestrians and of universal accessibility. The gap or opportunity identified was in the professional literature, where although there is a general move towards making inner city streets more liveable by inverting the priorities, the professional practice has nevertheless struggled with, or been despondent about, motorisation-dominant space and the legacy of the twentieth century street designed for vehicles. Distinctive city spaces have been a lower priority than keeping things moving and keeping business as usual operating, which has tended to favour moving private traffic and also parking provision. There were very few direct connections between the literature and the interviews. Some professionals in Frankfurt referenced the historical and grey literatures, and there was some evidence from the interviewees (F17, F19) that there was a genuine interest in applying the spirit of new street design, which is not as new in context of its connection with *Städtebau*.

#### Methodology

The research found that it might be better to consider that methodologies for street design may be more open and flexible, as it was discovered in the two very complex inner city areas which were investigated as case studies. As Rittel and Weber observed in the seminal essay, *Dilemmas in a General Theory of Planning* (1973), while the professionals who were once venerated in the post-war period of the twentieth century, and were credited with 'solving problems', the equivalent professionals now work in a wicked planning field:

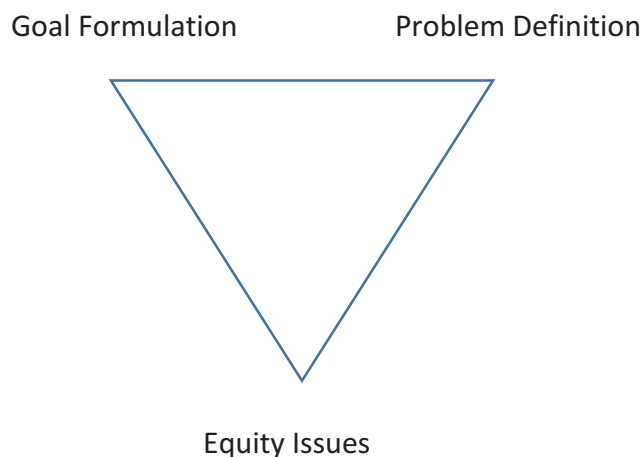


Fig 7.22. Modelling a wicked problem: between formulating goals, defining problems and ensuring equity, each of which is changing (Rittel and Weber 1973, drawn by the author).

What streets do, as systems, is being gradually re-defined, as the overall city design has grown and changed over the twentieth and early twenty-first century, although how they were initially designed (designated A5203 in the case of Caledonian Road) is now considered inadequate and antiquated. More importantly, streets for local users are places, local parts of neighbourhoods and people's *bailiwicks* or territories (Interview L5).

### *Case Studies*

In the case of London, local active groups remain motivated to bring about change and the charity sector offers support in regeneration, such as from *Sustrans DIY Streets* (Sustrans 2014), where public sector funding can be generated. Support for neighbourhood planning initiatives appears in station areas has only attracted modest public strategic regeneration

funding, in London with private funding and planning gain agreements (S106 and CIL) replacing some of the need for funding beyond the immediate station sites. Funding in the station area in the London case is mostly in a kind of shadow of the station regeneration. King's Place is a notable exception in London, but its connections via walkable public realm to the new university and station are of a poor quality. Funding in the station area, beyond the semi-private investment site seems generally less than that available than in outer London Boroughs where regeneration is more politically important. In Tottenham and Croydon for example, high street regeneration was actively funded in response to the 2011 riots – through the outer London Fund (DCLG 2013, TfL 2014).

### **Comparing the case studies – comparative lessons**

The process of investigating and discovering the findings of this research involved much listening, and it developed dialogues with people in each of the case study streets. The city contexts presented two different situations for the researcher, in which one started with one as 'home' and one as 'abroad', and then as the participant observation research evolved, these distinction became gradually less stark. Abroad could be taken to mean night time, the 'other' could be unfamiliar but at the same time could be physically very near. The uncanny was gradually unearthed in the form of the *noir*, and the *unheimlich* (unhomely / abroad) perspective was pursued in Frankfurt *Bahnhofsviertel*, and then also in Caledonian Road King's Cross.

### **Transport**

The question of designing streets using the link and place method and applying an inverted user hierarchy with the pedestrian and place foremost is more clearly reflected in the English language literature with Manual for Street 1 (2007) and 2 (2010) and Scottish Government (2014) and New York Department of Transport (NYDOT 2014)

### **Night**

*Literature* The balance of night and day in relation to street design can be interpreted beyond merely the natural physical contrast between night (dark) and day (light) in the literature can be expanded to consider the noir or uncanny culture of the street in relation to the quotidian and ordinary.



The night time as a down time for the station activity between midnight and dawn is a useful window for some maintenance and reloading activities which cannot be completed in the busy peak times.

### *Methodology*

Both night and day performance of streets were addressed in the case studies, and the role of adult and alternative entertainment could be better considered as part of a street design process. Controversially for the UK context, the Frankfurt model of service provision for 'street communities' including homeless, substance misusers and other vulnerable people as part of an integrated understanding of inner-city areas and especially a red-light or adult entertainment area, could be comparatively considered for London. These elements are present in London, but are not planned for in as direct a manner as they are in Frankfurt.

The Frankfurt Model, providing for the *Noir* and the 'scene' around the design for this 'aberrant' or 'deviant' (Benkel 2010) demographic as an acknowledged subset within German society has a long history of controversy, which challenges the way inner cities are managed and occupied by diverse groups. The model of noir occupation here can perhaps be better compared with Soho in London (see *Old Compton Street* in Roberts and Eldridge 2009, p182) as an established town centre, while King's Cross had evolved as a transitional sex and drugs and music scene only by default because of its decline with the railway lands.

In London, the recognition of these issues is through auditing by the Safer Streets Team and the Safer Neighbourhoods Team – which reports to the Safer neighbourhoods Committee with community members. Services are NHS at St Chad's Street Alcohol Recovery Project 130-134 Pentonville Road and Primary Health Care for Homeless People 264 Pentonville Road. The services for vulnerable groups are operated in close collaboration with groups like CRI Crime Reduction Initiatives, which has a charitable status, but often, especially in Frankfurt, in connection also with churches or religious groups.

In Frankfurt the City Services runs the Café Fix (shooting gallery) at Niddastrasse 54. On bulletin boards there is discussion suggesting that the facility will close, adapting as the common form of substance-using has changed from intravenous / syringe with tourniquet to liquid form heated using spoons, where sharps are not required and the facility requirements are simpler (DAF *Deutsches Architektur Forum* 2012). This also suggests that

like many other aspects of business and culture, the narcotics consumption scene changes with the availability and cost of different substances, and requirements and impacts of these on the street scene are constantly changing.

### *Case Studies*

Night entertainment appears to be almost balanced with day in the Frankfurt case study. Noir qualities of the station quarter as a red-light or 'tolerance' zone mean that it comes close to being a model of night and day cosmopolitanism, in a popular down to earth way, for long distance lorry drivers as much as for bankers, creatives and tourists. The spin-off of the late night entertainment business is the wide range of more mainstream business, from restaurants to shops and hotels like Levis 25h (sic) – the name of which suggests a thriving city which offers something even beyond 24 hours a day. The interviews which suggested the night time activity could be a problem were relatively few, and staff had strategies for dealing with potentially unwanted late night activity.

In Caledonian Road King's Cross, there is no clearly identifiable or signposted night time entertainment area, as there is in the recognised nightlife and red-light area of Soho, which is also considered a "West End Stress Area" in the City of Westminster (Roberts and Turner 2005). There is therefore no demarcated area for tolerance in Caledonian Road. As is now common in hundreds of locations throughout the UK, the Controlled Drinking Zone in the area allows police to prevent anyone they consider socially un-conducive from drinking in public at any time by means of antisocial behaviour orders.

The community has instead called for curbing the night time economy and little proactive promotion of its benefits as there has been in the *Purple Flag* scheme areas in Camden Town and Angel Islington. Islington has recently proposed a late-night levy according to some, to deter late night activity, while the local authority believes the fee will "manage" the night time activity. Instead, well managed and amenity late night activity could be fostered, beyond the 11pm closing time of the supermarket and local pubs, and is already accommodated by some eateries and convenience stores in addition to all-night MacDonalds' restaurants. There are some lock-ins at pubs and evening establishments, but there is no policy of proactively promoting night-time entertainment and establishments through a scheme such as the *Purple Flag* night time town centre.

## Conclusions to the Discussion

The main findings, in conclusion, are place-distinctiveness (*unverwechselbare Ortsidentität*), traffic movement (*verkehr auch fussgänger-*), Conflict (*Konflikt*), Recognition of others (*Erkennung der Andere*), Accessibility (*Zugänglichkeit*) and Transition Changeability (*Änderungsmöglichkeit*) and *Noir*.

*Noir* refers to the uncanny or the attractive-repulsive city. This is the city depicted in Khushwant Singh's *Delhi, a Novel*, (Penguin 1991) a city which is compelling for its shadowy filth combined with its bright attractive lights. Each of the findings has been discussed in relation to the four questions about street design process and its inner city applications in station areas and beyond.

To recap with some reflections on the journey of this research, I will switch back briefly to the first person. I anticipated that field work would be a significant mode of operation for a study on inner city streets, but it was the bodily learning from the field work, even more than the data or information collected, which made the greatest impression on the research, and it is this that the thesis has set out to convey.

In the past few years as a researcher I have amassed many photographs, notes and sketches, and moving around in these case study areas, I was able to get to know the local people I spoke with at well beyond a consultative level. I learned to navigate, see landmarks and to look, speak and walk the local way, and to discover 'apps' related to the studies, *Street Stories* (2012) and *GuideWriters' "Wir Lieben BHV –FFM Kuessen Verboten PuffGuide fuer Männer"* (2013). In part, this practical knowledge is an everyday familiarity, it is subjective and becomes tacit, a part of one. Another part of the knowledge is transferable and applicable to professionals and communities working on relevant street designs. The transferable and generaliseable is not easily summarised or wrapped up in a convenient package, but may be administered using the framework of the points outlined above. Above all, I learned something new about the sound and language of the streets. Further details of how these sounds and language could be part of the processes of analysing streetscapes and designing streets as streetscapes needs further development.

When I worked in international development, I acted in the role of an agent, who through capacity building, would help to guide the teachers I was working with, and to help them to

improve their careers and their work on improving their country's level of human development. Many felt that internationalising, in large part by learning English, was part of the international development process. This understandable but biased view was a way of establishing rapport with international development volunteers. Local knowledge needs greater promotion and encouragement, but this is often more obvious from outside. In the role of researcher, I was relatively more detached from at least the more remote of the two case studies, in the role of a facilitator and (participant) observer. In the more immediate one, I was immersed, and the field work overlapped with my life, and I am now detaching to reflect.

Street design research, it seemed, would not have set out with such an altruistic aim as '*development*'. Urban development has many interpretations, and the optimistic one nurtured in the neighbourhood forum, inspired by the Localism Act 2011, was that the station area environment could be improved as a place for living working and playing. Development meant human development which would benefit the vitality and economic and social sustainability of the station area as a by-product of human and economic investment. The wider interpretation of the local planning authority however, was that development would be more traditionally and pragmatically framed as economic development, though investment in new buildings. The planning gain agreed as a 'community investment' with the physical new-build development in the area was decanted from the local area or made invisible under the compromised terms of the local authority.

International development is a changing wicked problem, in the researcher's experience, aimed at securing more sustainable local livelihoods, while local economic development on the other hand assumes that economic growth is inevitably and innately beneficial for local people. Human development would be valuable for inner city areas as a sustainable basis for fluctuating economic development, if the process of development was not considered sustainable in Western Europe's capital cities before 2007. The period since 2007 has given the opportunity to reflect on progress and quality of life in the inner city street in Western Europe, in this research in London and Frankfurt in particular.

The findings of the research discussed here have now been correlated with the four main research enquiries in this thesis, about orchestrating the design process, considering the temporal day-and-night workings of the city, reconciling the movement and the place

aspects of the street, and the emancipatory and educational role of street design exercises as part of twenty-first century.

In the concluding chapter to follow, recommendations are made about street design as a process, at the local level and in a generaliseable way.

# conclusion 8

Occupying Streets:

Street Design in Station Areas in London and Frankfurt

### **Introduction to the Conclusion chapter**

The previous chapter expanded discursively upon the findings of this research on street design, and has now described six ways of analysing the complexity of street design in station areas; considering distinctiveness, transport, conflict, recognition, accessibility and transient quality from the findings. Based on the case studies, these will develop processes of street design which will accommodate diverse stakeholders.

In concluding this research, the characteristics of urban streets near railway stations are drawn out and a clear proposal of an improved planning process is made, in response to the research question about how street design would better reflect a more appropriate diverse set of users. Reflecting on the research process, recommendations are made for improved planning processes for street design.

The research found that, based on case study research, further ways can be continuously sought and developed for street design to be orchestrated in more genuinely collaborative ways between the disciplines involved in street design. It is vital for there to be better and more direct communication with people who use streets. In the broader communication related to collaboration and participation, the analytical themes here may apply, and a grounded mixed methodology can be developed, with an emphasis on constructively and interpretatively developing dialogues with user groups and stakeholder group as this research has shown in the preceding chapters.

The connected qualities of places might be improved with better collaboration and in-depth communication between stakeholders, especially between professionals and lay stakeholders, like the range consulted for this research. This may be compared with the detailed stakeholder model used in Jones Roberts and Boujenko's study of *Mixed Use Streets* (2005), in which the Tooting case study was also a station interchange area with many passers-by, bus passengers and train passengers .

Street Design processes would be improved, on one hand, by agencies and the various professionals involved in street design, by more sensitively employing field work research prototyping and test methods. These would supplement or replace some desk- or laboratory-based research methods for street design. Rapport with users might be developed by communication directly with users and through controlled field trials, to

supplement or replace computer modelling of pedestrian behaviour, which is sometimes used for the laboratory-based analysis and design of intensively used mixed use streets. Those working in the roles of facilitators and designers for street design processes would also do well to improve their understanding of specialist knowledge which is already in the command of lay stakeholders in street design. A series of recommendations below indicate ways in which it is recommended to improve the existing planning situation for street design in Niddastrasse and in Caledonian Road.

This research proposes that it would be valuable to develop greater sensitivity to human senses in street design, especially sound, and to work beyond the ostensible aim of spatial prioritisation of walking and vulnerable users over motorised users, a well-intentioned but too tentative measure in practice.

Considerations about the street at night and day should be more closely incorporated into professional and stakeholder thinking about street design, especially for intensively used inner city areas. Place should have more a more dominant influence over movement in station area streets where there are sufficient movement links off street. Street design ought to be more inclusive, and more widely accessible in terms of both process and in physical outcomes. Street design has the potential to be emancipatory and provide informative insights for all stakeholders.

The six groups of findings discussed in the previous chapters were correlated with the main research question in this thesis about how streets can be designed to meet diverse user requirements. Design process, taking into consideration the temporal day-and-night workings of the city, alongside the balancing movement and place qualities of the street, and the emancipatory informative role of street design exercises forms a part of twenty-first century livable urban streets. In this concluding chapter, recommendations are made about urban street design as a process, at both the local level and in generaliseable ways.

Reflections on what the research might have done differently, if it were started over again today, are set out in this chapter. Matters deserving further research are also discussed. The benefits to the researcher from this doctoral research enterprise are wider, and include the broader processes of listening, working on site and working sensitively with the urban



soundscape. Finally, the proposed contribution to knowledge is presented. We turn now to the central research question.

The main research question was “how can streets be designed to meet diverse user requirements?” and a sub-question “how do we understand the diversity of functions that streets facilitate?”

The research found that currently, street design for public realms in the two study sites tends to lack an overall connectedness and cogency. These are complex urban situations, and there is the dilemma of street design as a ‘wicked problem’, discussed in the literature review, which means even an individual street situation as a design problem is fluid and insoluble. However, the management of inner city street spaces, the pattern and natures of the occupations of the street, and ambiances of these areas have changed in the past decade.

In the London case study, street design was found to be currently poorly ‘orchestrated’ by disconnected agencies and professionals working in discipline ‘silos’ without a direct stake or local experience in the area, and lacking or ignoring genuine local participation. Participation, or ‘consultation delivery’ as it was termed in the London case study was tokenistic form of consultation, where it was ‘delivered’ as a policy process but little inherent empowerment resulted for those consulted.

Street Design was sometimes based on unclear and conflicting remits and responsibilities between highway authorities. There was confusion between borough and city level authorities and between local authority departments in the case of London, while in Frankfurt, the conflict of remits – *zuständigkeiten* (Interview F01) – existed with less ambiguity to being in clear conflict in Frankfurt (Interview F01, discussed on page 219 in Chapter 6, the Analysis. The Frankfurt planning officer explained that the City Planning and Urban Design Department had become physically and professionally detached from the ‘Road Building and Development department’ although the latter would issue permits for example, for street pavement restaurant uses, with a clear influence on the public realm.

The ‘Road Building and Development Department’ *Amt für Straßenbau und Erschließung* had also been recently consolidated from two departments, Road Building (Strassenbau),

and Development (*Erschliessung*), in the process of their relocation and becoming distanced from the planning department. The disconnection of professional disciplines and departments further fragments the ways the public realm is designed and managed.

In the field of street design where several disciplines collaborate, the disconnection between discipline silos has been identified as an issue. In chapter 2, the schism between professions was discussed, and the authorities involved in managing street design have been disconnected since the invention of highway engineering as a profession (Marshall 2005).

This research found that highway engineering design lacks focus at the pedestrian scale despite the new professional street design guidance for the UK imploring engineers to consider pedestrians first (MfS 2 2010). The conflict of interest is most evident in mixed use inner city streets in London's international railway station area, but is also found in a different and more bureaucratic form in Germany, in the Frankfurt case study. In London's city-wide transport authority there is an inherent bias toward motorised transport and cycling on "roads" rather than walking and the pedestrian realm for "streets". Policy exists for improving streets and the pedestrian realm, but where this is most focused, as the case study showed in the public highway elements of the railway station area, the strategic movement of commercial motor traffic takes precedence over quality of the public realm and liveability and walkability.

Urban design and street design have value in private realms or within the corporate realm of the railway station area, while the truly public urban realm and shared space is problematic. The station area's local public realm beyond the immediate station boundary is not the responsibility of the railway authority and is managed non-locally by multiple authorities. In the London case study, the local station area public realm and place quality is managed by two local authorities with only an ostensibly shared place plan (Camden and Islington c.2012). The wider area in the London case is dominated by the influence of highway engineering for motoring access, including public road transport. In the case of Frankfurt, street design thinking is slightly more integrated between the public realm and the architectural fabric, with a local 'studio', the *Stadtteilbuero*. The building and street

relationship in Frankfurt is also hierarchically rule-based, but in a way the research found slightly more benign and less conflicted. The profession and discipline of *städtebau* integrates architectural space and highway space in a culturally more established way than the ‘placeshaping’ and ‘place-making’ disciplines of architecture, street design and urban design.

### **Main recommendations - proposals for improved planning processes for street design**

The recommendations for street design in station areas from this research are in several areas; they relate to the roles of street design stakeholders of various kinds, as outlined in the methodology (chapter 3) and the (analysis chapter 6).

Street users including hard to reach streets users in the station area context were found to be a diverse and conflicted with their own identity and views about the distinctiveness of this inner city neighbourhood. The analysis of users found a cross section of occupants: passers-by, travellers, visitors, tourists, business owners and visitors or clients, restaurant and café staff, restaurant and café guests, restaurant delivery staff, hotel staff, hotel guests, church missionaries, church visitors, substance users, support staff, local authority actors including planners and geographers, and local workers on lunch break including architects, designers, finance and bank staff, local residents, non-resident business visitors, and substance abuse support service users. It is recommended that a more collaborative process is used which fully incorporates a closer dialogue with users, established with taking more time to constructively interpret diverse users’ needs.

### **Caledonian Road and Niddastrasse: Analysis Recommendations and proposals**

The recommendations relate to the analysis of the existing situation in two streets in station areas, and makes a clear proposal of an improved planning process.

It is recommended that street design stakeholders and agencies should aim to work on street design joint with users - more than they do at present. There are cross cultural insights to be gained in the comparison between Frankfurt and London. Street design stakeholders and agencies should aim to work with street design on site in the field; it will require much more effort and involve substantial change to

professionals' ways of working in order to engage more actively with the inverted hierarchy, where pedestrians' interests are paramount.

### **Orchestrating street design** – approaches and practices to Street Design

#### *Users and Interest Groups*

Selected users and interest groups located on the site should strongly engage in direct grass roots contact - where recruited and consulted promoting a wider design dialogue and a more thorough approach to shared street design.

#### *Promoting Collaboration around Design Issues*

Street design issues are significant aspect of the public realm and concern a wide community of users. As stated above, the process of street design would be improved if jointly orchestrated by the agencies involved in the street design and management, working closely together with end users, stakeholders, and actual occupiers of these spaces. In the UK, the *National Planning Policy Framework* (2012) suggests that the planning system supports neighbourhood planning by moving from a culture of consultation to a culture of collaboration (Kaszynska *et al*, 2012). However, the implications of genuine engagement with stakeholders are considerable and complex. The NPPF agenda of placing more power in local stakeholders' hands would mean developing collaboration processes, which themselves would require information and knowledge sharing with emancipatory effects in communities, rather than merely cutting red-tape and costs of civil servants' consultation time. These collaborative processes would need to be done on a localised 'place' basis, working with local stakeholders, rather than systematically by networks and abstract principles from a desk, which seemed to apply in London, for example in the London-wide consultation delivery process used by Transport for London to demonstrate the fulfilment of its obligations in the case of its King's Cross work (TfL 2015).

#### *Good Practice exchange* **two case studies**

This research found that there were good practices of inner city street design to be exchanged between two dissimilar cultures in urban streets in large cities.

In the Frankfurt example, the *Stadtteilbuero* site office was clearly regarded as a point of contact and communication with the planning process, and a place to share concerns with

local people. In the case of the *Stadtteilbuero* for Frankfurt Bahnhofsviertel, the facilitator staff on site at the *Stadtteilbuero* was led a geographer known to at least some of the lay people interviewed, suggesting the role was an effective one. The geographer developed an informal consultative network in the community resulting in a continued public dialogue regarding the sense of place and distinctiveness of the area.

A further example of good practice was the annual street party in the form of the Bahnhofsviertelnacht night festival . The occasion builds on the reputation of the area as a night entertainment location and even exploits the adult / risqué reputation of the area.

In the London King's Cross example, good practice includes the mobilisation of the voluntary sector in engagement with neighbourhood planning.

### **How Codes formalise the design process**

The design codes applied in Frankfurt are well established and consistently applied, whether in the case of the two planning instruments the Bebauungsplan, the Stadtentwicklungsplan – city development plan or the ESG 2011 (Design Guidelines for Streets in Built-up Areas) The latter being a guidance note from the FGSV (Research Society for Streets and Transport) but apparently distinct from urban design .

In the case of Frankfurt, the codes are respected and adhered to, but segregated along disciplinary lines. In effect, multiple agencies work separately on the same aspects of street designs.

Citizen participation was facilitated by the staff and the physical space at the *Stadtteilbuero* as mentioned in the previous point.

The London approach to the formalised design process codes was more compromised, partly because of the two-level and three-level public realm authorities remits. It is a complicated system, making citizen participation more difficult.

### **Designing and Managing Potential Conflicts**

Street Design stakeholders and agencies should aim to work on street design with wider accessibility, according to first principles rather than only applying standards.

Street Design stakeholders and agencies should aim to test street design proposals live on site, with engineers / designers present together with user stakeholders or occupiers. This occurred to some degree in this research with workshops and interviews, but it seems to be seldom practiced by professionals involved in street design.

Street Design stakeholders and agencies should aim to consider more carefully how the street is used at all hours, including seasonal and day and night variation.

Street Design stakeholders and agencies should encourage and foster diversity of occupants and occupation, that is to foster the diversity of people and uses which is distinctive to the urban character.

The key overriding aspect is that the immediacy of human collaborative involvement needs to be revived from bureaucratic cultures of civic design and management. Designers and local interests need to foster engagement, and in the city itself in a lively way. – including diverse stakeholders and at different times of day and seasons. There is a need to bring back the reality of street life in street design, bringing it back from the detached, over-technologised, dehumanized and abstract to concrete reality.

The scale of street design London-wide by the Mayor's highway authority is at odds with the borough- and ward-scale designs appropriate to the station quarter. Traffic direction and control have become increasingly mechanised and automated in parallel with the increasingly motorised occupants of streets, to the point that pedestrian automation is desired. The signal control infrastructure, designed around the norm of fast-moving motorised users, unnecessarily stayed with twentieth century technology while the use of streets, buildings and the habits of people as pedestrians have evolved into the twenty first century.

The hierarchy established by motorised inner city streets must be unpicked. The car-dominated street is described in the previously mentioned Mixed Use Streets study. This will depend upon a thorough review of actual live use of streets rather than the biased vehicle-based 'journey time reliability' (JTR) modelling for fast-moving motorised (commercial) vehicles. In the Frankfurt case study, although the local planning 'bureau' and the traffic department were somewhat estranged, the processes in the dense and complex 24 hour urban neighbourhood at the centre of a small city within a large conurbation were more

immediate and tangible. The government officials and contractors involved had a genuine face-to-face relationship with some of the occupants of the street sampled. These relationship contributed to developing the rapport between agencies and street users.

Each of the recommendations is now explained in more detail.

### **Orchestrating street design**

***Work on Site, using the inverted hierarchy in the guidance to argue for pedestrians to be considered first.***

It was discovered through this research that working on site was a highly effective way to gain a detailed understanding and analysis of street design issues. Current design guidance (MfS 2 2010 p.7, ESG 2011 and Bechtler 2010) recommends considering pedestrians first, but the implementation of this priority in design is not evident in London. The example was the junction review process used by TfL. For bureaucratic reasons it was not possible to apply the TfL Valuing Urban Realm Toolkit, as public realm was not a transport consideration for the junctions. In this research, the field work was supported by desk-based research, but the field work brought the street design considerations to life and humanised even the most problematic or arcane-sounding issues. From the drug scene to adult entertainment and red-light area activities, field work provided an understanding of the diverse roles of uses and how streets are used.

The live fieldwork for this research incorporated careful management of assessable risks, and held considerable challenges, unlike any laboratory situation. However a desk-based and office-hours approach to design for these station areas would have led to misdirected and probably entirely inappropriate street design analysis and proposals in the King's Cross case.

Though it is difficult to demonstrate empirically, the research has had emancipatory effects, providing comparative information to participants, who became more informed about contemporary innovation in street design in both cities and internationally. It is possible that the interview on site in London with a TfL highway engineer in 2011 led to a different approach in the street design process which began in 2013, in a meeting at Birkenhead Street near the site with same engineer in 2014. This research could be seen to

have a professionally challenging and emancipatory effect for that engineer, who may have a wider perspective on the community through the research interview dialogue. The value of working on site and collaborating between many disciplines is demonstrated in the results of the Green Sky Thinking 24 hour workshop held on site in September 2011, as discussed in the London case study in chapter 5.

### ***first principles for accessibility***

Stakeholders should assess the environment directly on site. The local place accessibility comes first. Referring to guidelines can follow. At first hand, it is recommended that stakeholders consider the place with all senses: sound, smell, tactile and kinaesthetic elements, not just with visuals or computer modelling. This reinforces an aspect of Jan Gehl's early work on urban design, which has never been incorporated into street design. Even inner city streets can be designed as acoustic environments in which to talk above the background noise of traffic and experience a shared audible environment (Gehl 1987).

The engineering-based method of TfL's junction review in London clearly works against place-based collaboration. Although systems have been designed for desk-based analysis, formulation documentation and 'implementation' by contractors on site could be carried out first hand using a more sensory, 'ground roots' approach.

The design of streets should be orchestrated as an integrated part of neighbourhood development, in a careful unpicking of the design issues with the stakeholders, such as shopkeepers and local residents, and based consistently on first-hand information. Street design for traffic safety or refurbishment schemes, if the latter are ever publicly funded, are only small parts of city place making.

Genuine participative and people-centred design will require processes which go beyond the simple and unrealistic reversal of the hierarchy with the pedestrian first, as guidelines suggest (DfT 2007, MfS 2, 2010). Full consideration of the urban living environment, and also a thorough temporal analysis are needed in order to understand the complementarity of peak and down times, active and passive, day time and evening, quotidian and noir.

### **The Balance of Movement and Place**



This research found through the case studies that movement and place balancing is currently managed in street design without thorough assessment of localised place quality. New street design literature ostensibly aims to do this by considering both movement and place, albeit with a highway engineering perspective, based on planning physical space allocation, and omitting sound, smell and other qualities characteristic of place. Making concessions to movement or ‘link’ capacity, reducing speed or volume to benefit generic ‘place’ quality is implicit in the guideline principles of balancing link and place.

Bureaucratic limitations of collaboration with users, and the failings to fully embrace aspects including the representation of an area’s diverse cross section of occupants means that place quality – mean that place quality is compromised when architectural ‘distinctiveness’ is compromised or altogether forgotten. It is critically important to refer to the architecture as the respondents did in the interviews under the topic of ‘distinctiveness’ (see elevations in Chapters 4 and 5 (case studies) and 6 for the analysis).

In the King’s Cross case study, the local councillor representing residents in the campaign for public realm improvements suggested that the local authority highway design officers would be more open with TfL highway design officers if local resident stakeholders were not present. Taking local stakeholders out of the collaboration would also allow the work to be framed by the expert agencies rather than lay resident street users. Working without local residents’ interference would be more convenient for experts and officers, but tends to allow non-resident or desk-based professionals to revert to their comfort zone, to the compromised aesthetic framework of highway-engineering-led process.

The invention of highway engineering was accompanied by a schism in urban design, “between the treatment of roads as movement channels, and the treatment of buildings and public space” and this led to a deconstruction and separation of elements of the street, and a resulting division of labour between the design professions (Marshall 2005 p 7). Street design became subsumed within road design (ibid).

Established large scale motorised movement networks, reaching beyond local place, have increasingly taken priority over the restoration of qualities of local place, and place qualities are more difficult to quantify than traffic flow. Based on methods and data used,

there is a professional bias such that quantifiable carriageway capacity is more sacrosanct than unquantifiable qualities of walking and crossing as an urban experience. However the associated perception of environmental architecture – smell, taste and sound in walking is richer and more complex as a form of sensory experience than the non-place of the transport-focused view from the road. This applies both in the London case study and to a less obvious degree, in the Frankfurt *Bahnhofsviertel* study.

The balancing of movement and place should be managed over time as local urban issues emerge, as occupation and congestion continually change. Understanding street and city design as a wicked problem suggests that there can be no final spatial solution, but that space is best managed by constant adaptation and re-adaptation, bringing back the human factor. Returning to first principles may require suspension of vehicle-biased modelling systems for assessment (VISSIM and TRANSYS) and computer-automated traffic management (SCOOT – Split Cycle Offset Optimisation Technique) of the public realm. A place or destination, it might be suggested, ought to be assessed primarily as a palpable, unmediated place at first hand by field work visits, and ideally testing on site.

Twentieth century traffic management technology increasingly marginalises the accessible, sensory walking experience of the city. If the public realm must be rented through parking revenue and lane rental, might not the rent generated be directed and managed locally by stakeholders in the vicinity of the income generated? This is the case with planning gain in the UK, compensating residents for the detrimental effect on amenity of new development. If the agreed planning gain concessions of a development such as a railway station are redirected to a different place, the local benefit agreed is lost. Local authority bureaucracy allowed planning gain agreements (Section 106 and CIL Community Infrastructure Levies) to be allocated in a separate neighbourhood elsewhere within the borough, rather than on a local basis.

Streets are critically important and symbolic as a remnant of the commons, and a key constituent part of public realm. The Occupy movement has highlighted this by inhabiting the commons, including parks and street as a demonstration against the privatisation of public space (Chomsky 2014). But in the modern city, streets and roads are increasingly

taken for granted for commercial motoring at the expense of other local stakeholders in their use and management. Mixed use streets in London such as strategic routes are especially vulnerable to over-exploitation for increasing motor traffic. The reconciliation of citywide and nationwide interests with the basic local interests of resident and workers walking, living, working and shopping in a neighbourhood is a fundamental part of city life, using multiple modes of transport. This is particularly highlighted in the station area. Further, the capacity for unquantifiable pleasure or enjoyment (or even displeasure) in the city is critical to the viability and vitality of inner city areas such as railway station areas, where the street occupants are particularly diverse.

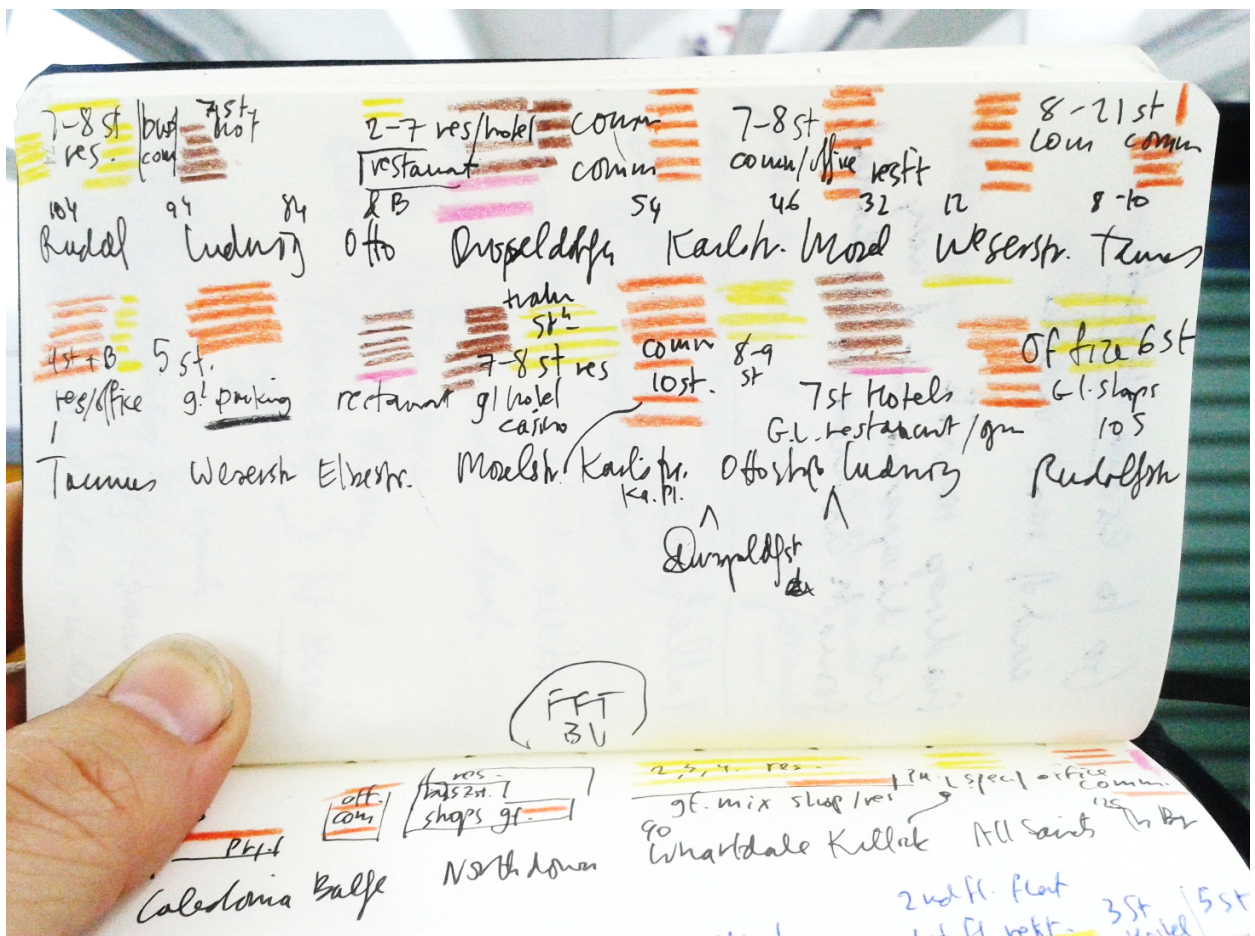


Fig. 8.1 Field work notebook

Accessibility, in both a cognitive and physical sense, is an implicit expectation by the public in street design of public realms. Design for pedestrians ought to be universally legible, non-technical and tacit. Motoring for licensed drivers has come to dominate with its own

language of signs and systems, and specialist signs and systems are being spread to cyclists by overzealous cycling-friendly highway engineering.

The idea of aiming for universal accessibility in streets has been increasingly marginalised and specialised as a disability issue rather than a mainstream issue with wide benefit for street users of all kinds. Disability access in street design has become a specialised engineer rather than a mainstream issue for all street design participants and to benefit all street users in intensively used inner city streets. Accessibility for diverse users of the street, from the most vulnerable pedestrian to the most heavy and dangerous heavy goods vehicles (HGVs) – is a very complex problem, and the latter have their own inbuilt impairments and limitations in urban streets through vehicle design (driver blind spots, noise, emissions, limitations to control and stopping). The ‘reversed hierarchy’ principle of *Manual for Streets* (2010 p.7) only begins to signpost these differences. While tactile and audible way-finding devices, like giant highway signage, enhances the experience of the environment for specific users, the more subtle ecological signals of place tend to be forgotten, as the interview with a cyclist highlighted: "You could hear the birds in the trees in King’s Cross" (Interview L16). Beyond the acceptable level of safety for vehicle drivers, cyclists, intoxicated, visually impaired or vulnerable pedestrians, the sublime experience of the city as a background for human experience is of paramount importance. Ambiance, air quality, noise, sound, music and smell with the architectural qualities, volumes, surfaces and styles, all make the street design distinctive and accessible for diverse people in the city.

### ***Testing on site street designs.***

Each of the two case study sites has undergone some physical adaptations during the course of the research. Despite the community desire for an overarching vision in King’s Cross, the adaptations have mostly been ad-hoc or temporary. In the King’s Cross case, junction alterations were made ‘temporarily’ for the Olympic Games 2012, and in the process, a memorial Ghost Bike for a local cyclist had to be repositioned in consultation with the next of kin. The same person is cited as a stakeholder in the consultation documents (TfL 2015).

A set back, open space area in Caledonian Road which had been illegally appropriated as a parking space at Vaultex at 93 Caledonian Road was blocked off using Sheffield stands for cycle parking. Instead of this ironic improvised misuse of street furniture by the local

authority, this would be an opportunity to work with local people to develop a meaningful community facility.

The invention of highway engineering was accompanied by a schism in urban design, “between the treatment of roads as movement channels, and the treatment of buildings and public space” and this led to a deconstruction and separation of elements of the street, and a resulting division of labour between the design professions (Marshall 2005 p 7). Street design became subsumed within road design (ibid).

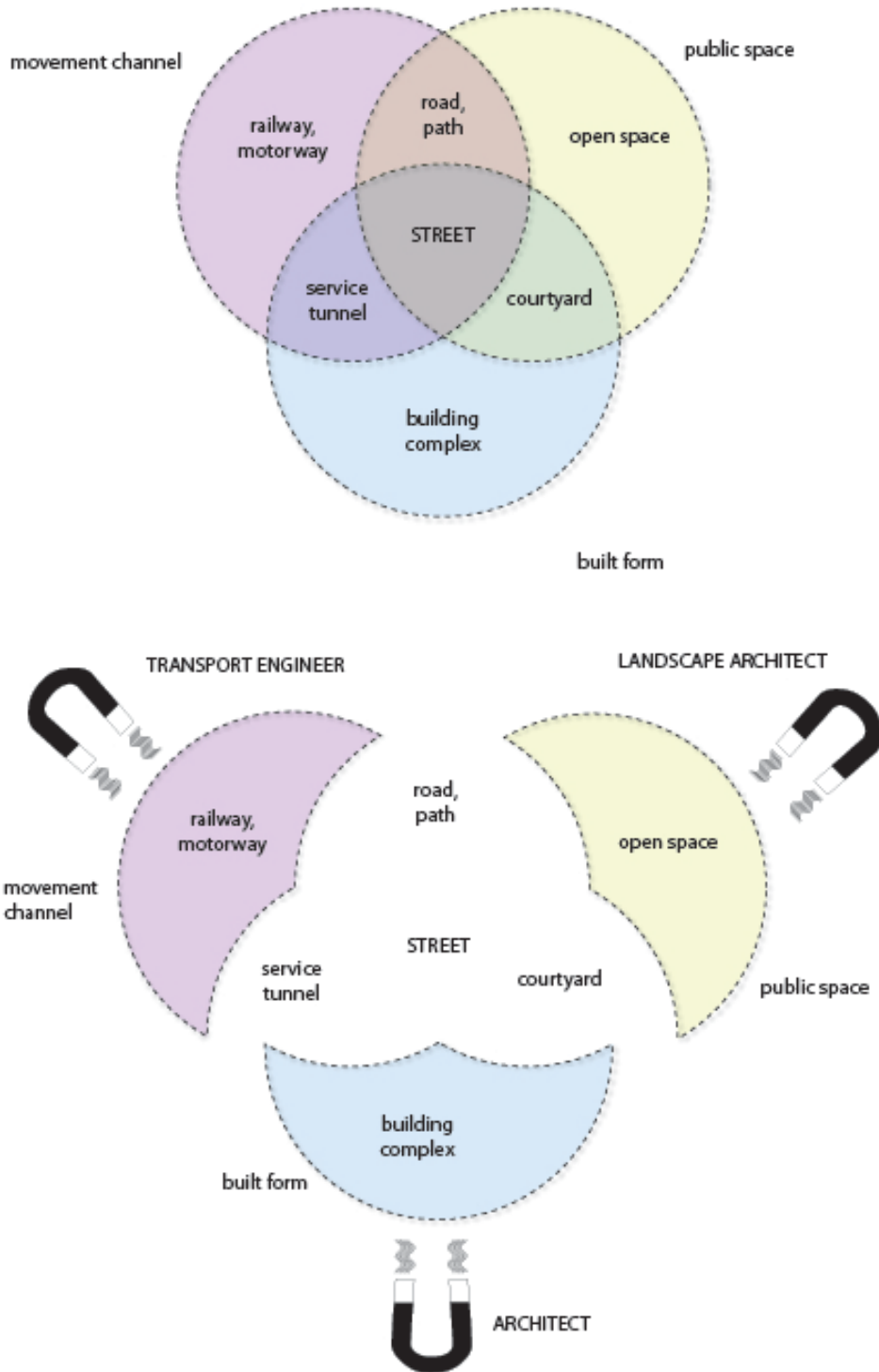


Figure 8.2. Schism (Marshall 2005 p 7)

Established, large scale motorised movement networks, reaching beyond local place, have increasingly taken priority over the restoration of qualities of local place, and place qualities are more difficult to quantify than traffic flow. There is a professional basis, based on methods and data used, such that quantifiable carriageway capacity is more sacrosanct than unquantifiable qualities of walking and crossing as an urban experience. For example the associated perception of environmental architecture – smell, taste and sound in walking is richer and more complex as a form of sensory experience than the non-place of the transport-focussed view from the road (Appleyard Lynch and Meyer 1965). This applies both in the London case study and to a less obvious degree, in the Frankfurt *Bahnhofsviertel* study.

The balancing of movement and place should be managed temporally by a gradual revealing of, and management of, emerging issues which are constantly changing. Understanding street and city design as a wicked problem suggests that there can be no final spatial solution but that space is best managed by constant adaptation and re-adaptation, bringing back the human factor. Returning to first principles may require suspension of vehicle-biased modelling systems for assessment (VISSIM and TRANSYS) and computer-automated traffic management (SCOOT – Split Cycle Offset Optimisation Technique) of the public realm. A place or destination, it might be suggested ought to be assessed primarily as a palpable unmediated place at first hand, by field work visits, and ideally testing on site.

Twentieth century traffic management technology increasingly marginalises the accessible, sensory walking experience of the city. If the public realm must be rented through parking revenue and lane rental, might not the rent generated be directed and managed locally by stakeholders in the vicinity of the income generated? As is the case with planning gain, if the agreed planning gain concessions of a development such as a railway station are redirected to a different place, the local benefit agreed is lost. Local authority bureaucracy allowed planning gain agreements (Section 106 and CIL Community Infrastructure Levies) to be allocated in a separate neighbourhood elsewhere within the borough, rather than on a local basis.

Streets are a critically important and symbolic as a remnant of the commons, and a key constituent part of public realm. The Occupy movement has highlighted this (Chomsky

2014). But in the modern city, streets and roads are increasingly taken for granted for commercial motoring at the expense of other local stakeholders in their use and management. Mixed use streets in London such as strategic routes are especially vulnerable to over-exploitation for increasing motor traffic. The reconciliation of citywide and nationwide interests with the basic local interests of resident and workers walking, living, working and shopping in a neighbourhood is a fundamental part of city life, using multiple modes of transport. This is particularly highlighted in the station area. Further, the capacity for unquantifiable pleasure or enjoyment (or even displeasure) in the city is critical to the viability and vitality of inner city areas such as railway station areas, where the street occupants are particularly diverse.



Figure 8.3. Forecourt space at Caledonian Road and Killick Street north (photo by the author, inset from KCCP)

In Frankfurt, street furniture was tagged and graffitied, and waste was piled up in Niddastrasse. Interviewees on more than one occasion mentioned "*junkies*" seeking to stash something in the façade of a building or a planter (F08). Planters were adapted to prevent their use as "hiding places" (F 10). Street closures at various times in each case



study area were occasioned by seasonal festivities. All of these temporary changes had an impact on the street design but were not necessarily recognised nor orchestrated in ways which might otherwise further benefit the vitality and conviviality of the local area, which might benefit from such occupations. Street design could be better tested in specific contexts, and design would therefore make more sense in terms of collaboration, accessibility, night and day and so on, after design changes were tested live.

Prototyping often occurs (perhaps unintentionally) during the construction process using temporary barriers and safety cones and during a period of users adapting, as happened with major highway changes in London's Euston Circus in early 2014. This technique is identified in the organisation Urban Design London's *Slow Streets Sourcebook* (UDL 2015). With prototyping as standard practice, alongside initial, genuine community engagement, street designers would be more able to accommodate a wide group of users.

### ***Planning for a 24 hour city***

The station area streets case studies have a particular nature of diurnal (twenty-four hour) variation. They are mixed-use areas with commercial, residential, post-industrial and many 24 hour businesses. In Frankfurt, there are late-night casinos, Levis 25 hour Hotel, other hotels with 24 hour reception, bars, and a sex industry which works from afternoon through evening. In London, there is 24 hour secret cash handling factory, convenience stores, supermarket shelf stacking and delivery, and two 24 hour McDonald's restaurants. The railway stations themselves are 24 hour operations, with bus and tram interchange functions all night in the hub. In Frankfurt station also, rail services including international trains operate throughout the night, connecting with distant cities like Basel and Berlin. Although currently the underground stations in London close, they will run 24 hours on weekends from 2015 (Johnson TfL 2013). The impact of pedestrian movements is modelled (Little 2009) but the implications on the pedestrian environment for future 24 hour London Underground weekends are not clear.

It is therefore critically important to consider all hours of day and night as a model for street design, rather than merely designing for the morning peak on the road, as is the case for journey time reliability (JTR) modelling in London.

The normative bias of highway engineers in London, using journey time reliability JTR, enforces the Mayor of London's 'Smoothing Traffic Flow' agenda. This is especially the case on Mixed Priority Routes and Red Routes under the control of TfL. These routes are termed 'roads' rather than 'streets' according to TfL (Roads Task Force, 2014). This is a political issue and affects the culture of the city.

Although the Roads Task Force report (2014) suggests otherwise, the explicit 'Smoothing Traffic Flow' agenda has apparent precedence over public realm quality. These public realms should also be considered as streets. They are transport arteries of London, but they are also arteries of life and circulation for commuters, shoppers and residents – whether waiting at bus stops, or walking to school.

### **Reflections - what might have been done differently?**

With hindsight, if this study were to be approached again, a number of considerations could be included to further enrich the research process. These include the following:

Working with an explicitly cross-disciplinary methodology would help all of the partners engaged in street design to become more informed about and gain confidence in sharing street design as a form of co-production and development of a neighbourhood. The social and experimental research methods held more interest than traditional or conventional urban analysis methods. The research might have also developed the areas where street design for night time entertainment may be in tension with street design for normal residents in daylight, as a specific area of emerging research. Cycling and the relationship between pedestrian and cyclist in the inner city street would be a specific study which is not currently being addressed in London. Furthermore, cyclists' combined vehicular and pedestrian interest in street design – because they walk and cycle – could be developed to improve liveability and walkability for all street users.

Balancing interview field work with more time working with activists and agencies in Frankfurt might have improved the emancipatory agenda. The study was immersive in the London Case Study, sometimes providing insufficient space and time for reflection. This unfortunately seems to be in the nature of participant observation. The period of action research however has brought many insights and some positive outcomes as reflected upon here.

A more specialised focus on street design for the ‘red light’ area, and the evening entertainment quarter, especially in London, would have been valuable, where these characteristics are under-acknowledged.

Rather than adding further to the large amount of grey literature for professionals and agencies on the subject of walkability and liveability-oriented street design in station areas, it would seem that direct working instead with professional education and community consultation–cum-education would be likely to improve dialogue and direct temporary action on sites. The action research done in this thesis has been an example of this sort of direct working.

The research field was one which crosses over between many different areas, and it would have been interesting to focus in more depth on one of the smaller topics, either pedestrian behaviour (and modelling) in the station area or the noir and illicit city which was only touched upon, and which would be suitable for detailed investigation.

It was the intention that the findings would elicit interest in the street as a pedestrian environment and also the possibility of shared space. Considering this in retrospect, discussion about shared space as a model physical solution was not forthcoming as anticipated. The understandings of shared space in the case study communities were of something physical and idealistic rather than process based and pragmatic, which was implicit in participation.

The research predictions regarding the analysis were somewhat borne out, in the way that combining interviews, sound recordings, traffic counts, drawings, diagrams and description using respective languages were addressed holistically and comparatively, developing a constructive methodology.

### **Further areas of research**

The measurement of pedestrian experience qualitative and quantitative, although present in the form of activist audits and PERS (Pedestrian Environment Ratings Surveys), would be suitable for deeper investigation at first hand rather than through ever more abstract computer modelling. It can be argued that the PERS audits, more than Sustrans or Living Streets pedestrian street audits – have a strong transport engineering bent, focused

primarily on safety, rather than on attractive urban landscape and streetscape qualities which make "attractive, enjoyable streets where it's great to walk" (Living Streets 2014).

Investigation of transport planning research into journey transfer time for pedestrians, and the street design implications of this pedestrian journey time in the urban setting. There is some indication that companies like *Path Intelligence*, which models pedestrian behaviour for shopping activity, would be able to apply the "non-intrusive" tracking methods to better understanding intermodal interchange or even social activity around entertainment and drinking in streets as part of the public realm.

Impacts of cycling in the urban station context would be a further area for investigation, in conjunction with modelling of pedestrian activities and movements in a railway station-dominated town centre. King's Cross Central website suggests 450 000 people pass through the hub every day (Kings Cross Central 2014). There is no information published about modelling of the movements and activities in the wider station area, beyond the private estate, across Euston Road, York Way and beyond.

Sound and senses at a local scale, local soundscape identity, for example, trains, traffic, voices, nature in trees or on the features of the neighbourhood all contribute to the sensory experience and sense of place. It would be valuable to further document and develop as part of the urban assets of the area. Urban streetscape and landscape is an experience rather than a space and this could be explored more widely. Gehl's mention of urban design which facilitates something as simple as enabling talking with a walking companion to reinforce conviviality has not been pursued in recent street design guidance (1987).

Busking and street performance at a local level could be developed as an experimental and independent culture rather than a corporate one. It could be licensed on Camden borough land, if amplification is necessary to compete with vehicle traffic noise, and would be in line with the aim of creative social capital being developed at *Central St Martins College* campus in Granary Square. A neighbourhood of King's Cross places including *King's Place*, *MacMillan Campus*, *Caledonian Road*, *Regent's Quarter*, and the *Regent's Canal*, together could curate and encourage localised music culture and develop the distinctiveness of the urban setting. *King's Place Cultural Centre* made an agreement to contribute to music in the

community through "outreach" but this is rarely audible beyond the walls of the building (GLA 2009, p23).

A comparable cultural programme has developed in Frankfurt *Bahnhofsviertel* over several years since 2008, between the music performance circuit of entertainment venues, the street parties for *Bahnhofsviertelnacht* (Station Quarter Night) and the *Block Party*. These are coordinated along with other relevant landmarks like the locally famous *Cream* music shop and the curated Gibson Rehearsal Room at the Levis Hotel 25h in Niddastrasse, all contributing to a creative cultural quarter, where busking and performance are part of the diverse street activity.

Sensory experience of the station area could be further investigated and developed, and with the transformation of the traffic gyratory, air quality and noise pollution improvements would contribute to an improved urban environment and create potential for better encounters with urban nature and the urban landscape. At the time of writing in June 2015, perception of some local residents is that the reintroduction of two way working on Caledonian Road has led to worsened environmental conditions. In the short term, while motor traffic adjusts, the traffic is congested and the noise and fumes more evident than when the traffic is mobile. The effect on the pedestrian environment and urban public realm will be longer term effects.

### ***Further Research on Conflict***

Working through the realities of conflict - between stakeholder interests in the street and the ways people feel about it at a local level - would be a useful process for development of the area. Concerns could be explored; would traffic be diverted to other areas? Would customers be attracted to come and shop here? Would residents or businesses likely see benefits? At present these implications of the complex problem of street design, which has been described in chapter 2 as a 'wicked problem', are considered at a larger organisational scale by authorities and are not generally being investigated collaboratively at the hyper-local scale. Although the long-needed pissoirs at Karlsplatz remain unsatisfactory (Frankfurt Gestalten 2014), the coffee meetings in with the town planner and Neighbourhood Office in Niddastrasse, Frankfurt all seem to suggest a model for this hyper-local collaboration. This research suggests that this

occurs more in Niddastrasse than in Caledonian Road and that something could be learned from the former.

### **Contribution to Knowledge**

In concluding this last chapter of the thesis, the original contribution to knowledge this thesis is made up of these five innovations:

### **Beyond the Manual for Streets**

The thesis, *Occupying Streets* aspired to go beyond the scope of *Manual for Streets 2 Wider Application of the Principles* (2010) which appeared during the course of the thesis research. The thesis sets out an approach for the design of inner city streets which reaches beyond the possibility of the user hierarchy proposed in *Manual for Streets 2*, which recommends a wider application of the principle of a user hierarchy, with pedestrians at the top. The wider application of the principles of street design from *Manual for Streets 1* (2007) which it states supersedes the guidelines of the *Design Manual for Roads and Bridges*. The traffic engineering principles of DMRB however are still ingrained in practice and in the basis of MfS 2 2010. This thesis recommends a return to first principles and to the *Mixed Priority Route* (DfT 2008), *Shared Space* (DfT 2011) and *CABE* (2007) studies.

The comparable equivalents in Germany are the *ESG 2011*, the *Empfehlungen fuer Strassengestaltung innerhalb bebauter Gebiete* which are difficult to access outside the membership of the FGSV the *Forschungsgesellschaft fuer Strassen und Verkehr* and the *Shared Space casebook* (Bechtler et. Al eds 2010).

This thesis proposes a set of alternative methods to complement urban design and highway engineering methods which also enable consideration for intensively used inner city streets and the noisier qualities of the railway station area.

### **Critiquing Shared Space methodology**

This thesis provides a critique and contribution to *Shared Space methodology* (Bechtler et al 2010, Hamilton Baillie) by offering two case studies of inner city streets for which a shared space methodology is one part of a wicked design process. Collaboration with local communities is a central part of a shared space street design methodology, but this thesis has explored the shared space methodology of collaborating with users in a highly complex

inner city street environment, where a shared space solution in the street is currently not practicable. In the Frankfurt case study, there are parts of the street which can be understood as links with some shared space quality balancing movement and place, but these are starkly contrasted with highly engineered, controlled and mechanised junctions which are necessary for the street as a whole to work satisfactorily. In the London case study there has been an incremental improvement in the balance of place and movement quality this year after the research was completed, when two-way traffic was introduced December 2014. The gradual movement towards shared space quality has begun after a decade of campaigning but the street is still dominated by motor traffic.

### **Architectural and urban design thinking in street design**

The thesis demonstrates a need for the application of architectural as well as urban thinking is prominent throughout this study in relation to street design, above all in inner city areas where streets are used intensively. Enlightened traffic engineering is not enough. It has merely evolved from traffic engineering with a bias towards mechanised space and motorized journey planning to ostensible designing with a reversed hierarchy. It is difficult to apply the reversed hierarchy to designing inner city streets in station areas in order to restore livability and walkability to inner city streets like those in the case studies. The thesis contributes a demonstration that architectural and urban design thinking from grounded research however, is a means of planning livable inner city streets.

### **Reinforcing distinctiveness of place**

The research contributes the case that distinctiveness of place is of paramount importance to local communities based around a street design. Distinctiveness is unique and reinforces a sense of place people with which people associate strongly. This thesis further claims that transport planning and traffic, however important to accessibility and urban connectivity, should not be placed above the distinctiveness of place in street design.

### **Extending the street design literature for noir**

The extension of a literature towards exploring the inner city area's noir qualities forms part of this this thesis contribution. This noir literature recognizes a city's simultaneously attractive-repulsive nature of inner city areas, as places with diverse and sometimes conflicting users and views. Based on the comparison of the Frankfurt station quarter and in

particular its *Bahnhofsviertel* with the modestly seedy noir quarter which is King's Cross, the thesis also claims an extension of the literature and methodology of street design for the special noir quality of station areas streets at all hours. The transport-rich, highly accessible and connected station area attracts and accommodates a genuinely diverse set of street users.

The proposed contributions to knowledge in the field of street design for station areas are part of a contribution to ways of building cities; processes of designing and building, and valuing the outcomes. Despite work on station areas since Bertolini and Spit's *Cities on Rails* (1998), street design in station areas has been researched rarely, and is under-recognised as a critical factor in making these parts of cities liveable and vital again in the 21<sup>st</sup> century. This research suggests that building liveable and vital cities is significantly dependent upon regenerating and adapting inner city areas, and inner-urban areas around international railway centred transport hubs have been afforded insufficient attention in street design research.

Currently in the station areas investigated, there is an under-emphasis on street design as critical to the functioning of hubs and an over-emphasis on planning transport movement corridors, whether railways or road carriageways. Assessing these environments in person and on foot is essential in order to directly understand the issues beyond guideline engineering recommendations. The role of the pedestrians in streets toward making liveable and distinctive places are best assessed, tested and prototyped live on site.

Noir urbanism, as it has been described in the analysis, makes station areas distinctive and attractive, whether highly curated and managed as in the Frankfurt case study, or minimal and 'turned a blind eye to' as in the London case study. Evening and adult activities, informal street performance and diverse niche uses like private clubs complement the retail, commercial and office experience offered in station areas.

Street design may be better facilitated by cross-disciplinary working and by understanding the context of architectural-spatial aspects of the city design. The sensory and ambient qualities of sound are a most significant aspect of street design. These qualities, although not widely recognized, provide valuable evidence pertaining to the design of inner city streets.



Collaborative working and co-production of street spaces in the process of street design are emancipatory and educational processes, benefiting diverse grass roots stakeholders as well as professionals participating in developing streets as liveable or shared spaces.

### **Conclusion**

Considerations have been put forward related to how street design should be orchestrated more collaboratively, between professional agencies and users.

The design approach of addressing of night and day as pertinent considerations has been asserted throughout this study. These off-peak, evening, noir and ludic qualities of the street, often neglected by engineering, by street design and even by urban design, are critical to the distinctiveness of these specific places, King's Cross and Frankfurt's *Bahnhofsviertel*.

In consideration of how we citizens and professionals build our cities, it is argued, especially in station areas where there are abundant physical transport links off-street, that place should have more influence, being prioritised even above over movement on links. Street design as a process has the potential to be inclusive, accessible and emancipatory for people. Finding these forms of inclusivity and accessibility requires returning to first principles, and the everyday practices of collaboration and communication. This work suggests that street design practitioners think critically about the imposition of inherited engineering based guidelines for streets, and that we challenge assumptions about how specific streets and places work. It is desired that if not by this written thesis itself, then by the subsequent work and debate around it would inspire and galvanise others to take control of street design in their area or neighbourhood. It is the intention that this work would generate and further extend the process of researching streets in local areas, communicating with people and collaborating to research and find what is special about a place - and to generate local and shared objectives and aspirations for streets as shared spaces even in inner city areas.

As stated in the situationists' slogan, 'beneath the pavement, the beach'

Immer langsam voran. - Rennen auf der Straße hat den Ausdruck des Schreckens. Es ist schon das Stürzen des Opfers nachgeahmt in seinem Versuch, dem Sturz zu

entfliehen. Die Haltung des Kopfs, der oben bleiben möchte, ist die des Ertrinkenden, das angespannte Gesicht gleicht der Grimasse der Qual. Er muß geradeaus sehen, vermag kaum zurückzublicken, ohne zu straucheln, als säße im Nacken der Verfolger, dessen Antlitz erstarren läßt. Einmal rannte man vor Gefahren, die zu verzweifelt waren zum Standhalten, und ohne es zu wissen zeugt davon noch, wer dem enteilenden Autobus nachläuft. Die Verkehrsordnung braucht mit wilden Tieren nicht mehr zu rechnen, aber sie hat das Rennen nicht zugleich befriedet. Es verfremdet das bürgerliche Gehen. Die Wahrheit wird sichtbar, daß es mit der Sicherheit nichts Rechtes ist, daß man wie stets nur den losgelassenen Mächten des Lebens, wären es auch bloß Vehikel, entkommen muß. Die Gewohnheit des Leibes ans Gehen als das Normale stammt aus der guten alten Zeit. Es war die bürgerliche Weise, von der Stelle zu kommen: physische Entmythologisierung, frei vom Bann des hieratischen Schreitens, der obdachlosen Wanderschaft, der atemlosen Flucht. Menschenwürde bestand auf dem Recht zum Gang, einem Rhythmus, der nicht dem Leib von Befehl oder Schrecken abgedrungen wird. Spaziergang, Flanieren waren Zeitvertreib des Privaten, Erbschaft des feudalen Lustwandeln im neunzehnten Jahrhundert. Mit dem liberalen Zeitalter stirbt das Gehen ab, selbst wo nicht Auto gefahren wird. Die Jugendbewegung, die solche Tendenzen mit untrüglichem Masochismus ertastete, sagte den elterlichen Sonntagsausflügen die Fehde an und ersetzte sie durch freiwillige Gewaltmärsche, welche sie mittelalterlich Fahrt taufte, während zu dieser bald schon das Fordmodell zur Verfügung stand. Vielleicht verbirgt sich im Kultus der technischen Geschwindigkeiten wie im Sport der Impuls, den Schrecken des Rennens zu meistern, indem man es vom eigenen Leib abwendet und zugleich selbstherrlich überbietet: der Triumph des aufsteigenden Meilenzeigers beschwichtigt ritual die Angst des Verfolgten. Wenn aber einem Menschen zugerufen wird: »lauf«, vom Kind, das der Mutter ein vergessenes Täschchen aus dem ersten Stock holen soll, bis zum Gefangenen, dem die Eskorte die Flucht befiehlt, um einen Vorwand zu haben, ihn zu ermorden, dann wird die archaische Gewalt laut, die unhörbar sonst jeden Schritt lenkt. ...

*proceed slowly - Running in the street is an expression of terror. The victim's fall is*

*mimicked even in his attempt to prevent the fall. The head's position, holding itself upright, is like that of someone drowning, and the strained face is that of someone grimacing during torture. Looking straight ahead, he dare not look back lest he stumble, as if mounted by a pursuant of whom even a glimpse would stun. Once, people ran from dangers which they were felt unable to countenance, and someone who runs after a departing bus unwittingly bears witness to past terror. While traffic regulations need no longer account for wild animals, but those regulations have not made running more peaceful. Bourgeois walking estranges. The truth becomes apparent that safety is not a right, that the unleashed powers of life, even if only vehicles, must escape. The body's normal habit of walking originates in the good old days. It was the bourgeois way to get away: physical demythologization, free of the spell of hieratic pacing, homeless wandering, breathless flight. Human dignity insisted on the right to walk, a rhythm not extorted from the body by command or terror. The walk, the stroll, were private ways of passing time, the heritage of the feudal promenade in the nineteenth century. In the liberal era, walking is dying out, even where cars are not driven. The youth movement, touching on these tendencies with unmistakable masochism has bid farewell to Sunday outings with the parents, replacing them with voluntary violent marches, calling them medieval crusades, while at the same time the movement has the Ford model at its disposal. Perhaps, concealed within the cult of technical speed, there is a desire to master the shock of running, through which one taxes the body and simultaneously overcomes self-control – the triumph of the climbing mile counter ritually weighs on the one pursued. When someone calls out "run" to someone – from a child who is asked by his mother to fetch a forgotten purse from the first floor, to a prisoner who orders his warden to flee, to prevent him from murdering him, then the archaic violence is heard which otherwise inaudibly accompanies every step. (Translation Cowan 2015)*

Theodor Adorno, *Minima Moralia* 1947

It may be impossible to satisfy all users of a street, the design of which is a wicked problem (Rittel and Webber 1973, Carmona 2014, Biddulph 2012). However, in the ongoing futile and wicked process of designing streets to accommodate a diverse set of users, insights may be gained into the nature of even the most complex communities of physical proximity.

Walking in the street may have been deemed a “bourgeois form of locomotion” (Adorno ) in the modern twentieth century, spurning the modern and convenient forms of transport. As Adorno acknowledged, progress growth and movement are central to the survival of a city.

However, living in central London, at the core of one of the best-connected parts of the most technologically advanced and globally-aware cities, in the twenty-first century, it is crucial that street design joint contribute to a walkable and livable architecture of the city.

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**Frankfurt Niddastrasse elevations - North (even numbers)**

**Frankfurt Niddastrasse elevations - South (odd numbers)**

**London Caledonian Rd - West (odd numbers)**



**London Caledonian Rd - East (even numbers)**

**Bahnhofsviertelnacht 20.8.2009**



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1-33 Caledonian Road  
Pentonville Road

35

37

Caledonia Street

Balfe Street

55

59

Northdown Street

90

Wharfedale Road

Vaultex

Killick Street

All Saints Street

125

Thornhill Bridge



Pentonville Road

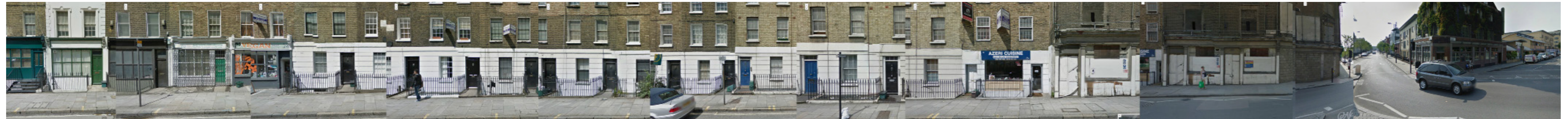
Caledonia Street

Balfe Street



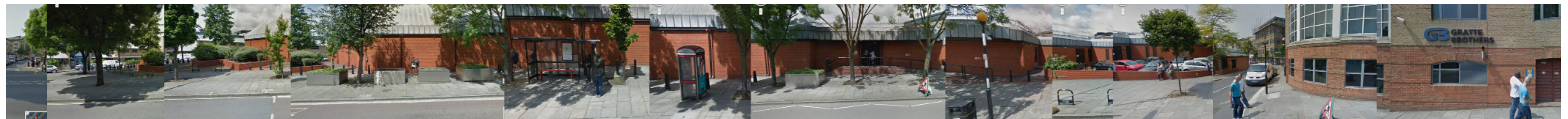
Balfe Street

Northdown Street



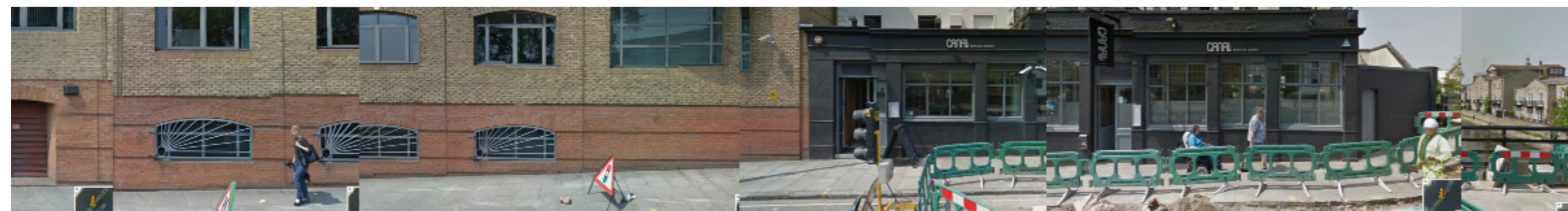
Wharfedale Road

Killick Street



Killick Street

All Saints Street



Caledonian Road elevations (google Street View 2013 - 2014)

Thornhill Bridge



Bridge Wharf    Wynford Road    132    112    104    76    66    50    36    Keystone Crescent    18    Omega Place    Pentonville Road



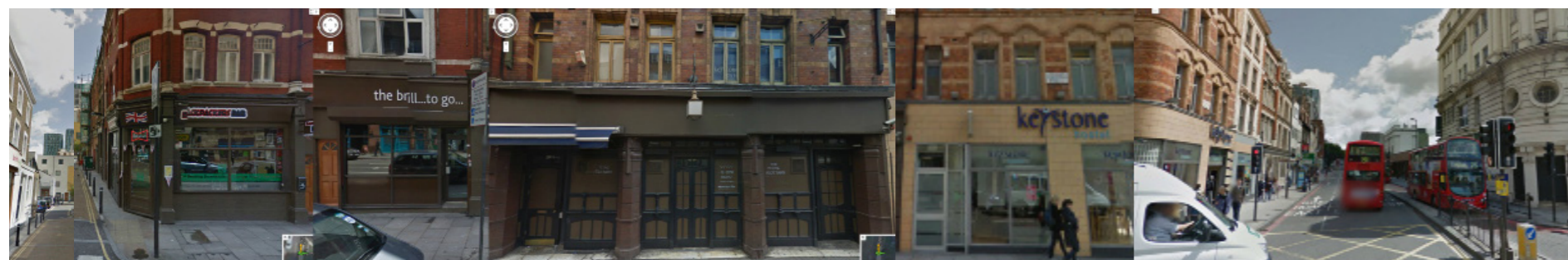
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Keystone Crescent    Keystone Crescent    Omega Place



Omega Place    Pentonville Road



104a  
Rudolfstraße

94  
Ludwigstraße



Düsseldorf Straße



54  
Karlstraße

46  
Mainzer Landstraße

32  
Weserstraße

8-10  
Taunusanlage



Rudolfstraße

Ludwigstraße



Ottostraße



Düsseldorf Straße



Karlstraße

Mainzer Landstraße



Weserstraße

Taunusanlage



Taunusanlage

Weserstraße

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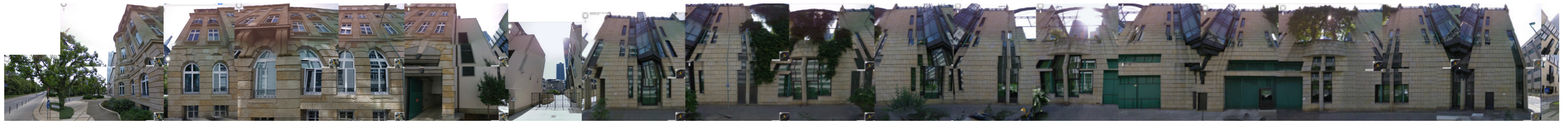
Moselstraße

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Ottostraße

Ludwigstraße

Rudolfstraße



Taunusanlage

Weserstraße



Weserstraße

Elbestraße



Moselstraße

Karlstraße



Ottostraße



Ludwigstraße

Rudolfstraße