Panta Rhei? What about When Movements Come to a Halt?

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1 ABSTRACT

Panta rhei means 'everything in perpetual motion'. This may be true for the cosmos but on planet earth movement of people cohabits with staying put. Even nomads –historic and contemporary – alternative between movement and temporary station. Movement in cities is interdependent with arriving, staying put, or moving from one travel mode or one place to another. Normally, movements of people have a purpose of arriving. There exists therefore interdependence between flows and nodes to use Manuel Castells concepts. All types of movements of people on planet earth require man made infrastructure for the flows as well as for the nodes, regardless of mode of movement.

The paper concentrates on urban dynamics related to railway infrastructure and selected railway stations in London. It argues that railway privatisation shifted the emphasis from flows to nodes, as privatised railway land and stations had greater development potential than still quasi publically owned and run railway tracks. This shift could have provided an opportunity for greater integration between transportation and land use planning, long an aspiration but more rarely implemented in practice. The corporate separation between railtracks and other key rail functions like running trains and stations may well have constituted a hindrance to such integration, except at interchanges, where flows meet nodes. Since the revival of rail travel in the UK railway stations and their surroundings became the place for massive regeneration projects. In particular, stations were transformed from mere spaces of connection between people travelling and using the city into places in their own right, parts of urban fabric with urban functions other than sheer interchanges between modes of movements. They were accommodating urban activities such as commerce and entertainment for people to linger, stay and use. They and their surroundings had become a destination in their own right. How do these destinations compare with other urban places?

Examples of station development are discussed by comparing their different approaches with special attention to their function as railway stations and their surroundings as public realm. The paper critically examines the impact of privatised railway strategies on station regeneration, the local environment surrounding them including land grab and, in particular, the sustainability or otherwise of the redesigned public realm, the 'relique pacificae' to 'panta rhei' as key to urbanity.

Keywords: railway station, regeneration, London, shrinkage, expansion

2 INTRODUCTION

Panta Rhei means 'everything in perpetual motion' according to Heraclitus. This may be the case of the cosmos, or of water, but on planet earth movement cohabits with standing still: 'reliqua pacificae' – 'peaceful rest'. Movement of people generally aims for destination. Even nomads - historic and contemporary – alternate between movement and temporary station. Movement, in cities which interest us here, is interdependent with arriving, staying put, or moving from one mode of transport or one place to another.

In the physical world movements of people and goods require infrastructure, regardless of mode of movement, be they controlled flight paths, rails, roads, cycle lanes, or walkways. Normally, movement does not take place for its own sake, it is interdependent with getting somewhere. Human flows are means to get from node to node. There exists therefore interdependence between flows and nodes, to use Manuel Castells concepts for whom all social processes are connected to physical space. In his theory interaction between space of flows and space of places (nodes) are leading to the transformation of the urban landscape.¹

For planners and the professionals of the built environment that implies a linked approach between transportation and land use. Despite repeated pleas to integrate all types of planning in many countries land use planning was -and still is- often segregated from transportation planning. Such segregation can be explained by conflicting interests between the transportation and the development industry. One way forward

towards integration is to improve connections between flows and nodes. In the case of railway transportation railway stations act as connections, enabling people to pass through their multimodal links to other places or to remain in their built up surroundings.

The paper concentrates on urban dynamics related to railway infrastructure and selected railway stations in London. It critically examines the impact of railway strategies on station regeneration, the local environment surrounding them including land grab and, in particular, the sustainability - or otherwise - of the redesigned public realm as key to their urbanity.

3 SHORT BACKGROUND HISTORY

Great Britain has the oldest railway system in the world built for steam locomotives on cast iron rails. As part of the industrial revolution a national rail network was constructed, driven by the 1840s railway boom. It served London, then the largest city in the world with over one million population in 1801\(^2\). London extended vastly in space and demography due to the introduction of railways in 1836 which helped London's population double to 2.2 million by the mid 19th century. Capital of the largest Empire with the largest port in the world, London was accessed by star shaped rail connections from the country and beyond ending in a ring of rail termini around the edge of inner London. Railway development was a crass affair. The private sector built and owned interlaced radial routes to accommodate the movement of goods, passengers and to support general trade. Many railtracks and station buildings were carved into the existing urban fabric, severing usually poor communities.

<table>
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<tr>
<th>Chronology of London railway station building</th>
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<td>(often two adjacent stations were built by rival entrepreneurs in the same location)</td>
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<tr>
<td>London Bridge station, 1836, a rebuilt existing station and an added station for commuters, now an interchange with ThamesLink</td>
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<td>Euston station, 1837, for goods from the industrial north, earmarked for the terminus of the planned HS2 line to the north west and Scotland</td>
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<tr>
<td>Fenchurch Street station, 1841, for City of London commuters, initially at the Minories</td>
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<tr>
<td>Waterloo station, 1848, with several additions by different developers, including the now redundant Eurostar terminal designed by Nicholas Grimshaw</td>
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<tr>
<td>King’s Cross station 1852, for goods and passenger services from the north-east and Scotland, totally regenerated with a new entrance, freeing the first façade showing the double railway arches designed by Lewis Cubitt</td>
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<tr>
<td>Paddington station, 1854, designed by Isambard Kingdom Brunel, linking up eastern and western counties, as well as more recently Heathrow airport</td>
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<tr>
<td>Victoria station, 1856, consisting of two stations serving south and south-east commuters, and also international trains from the continent across the channel by boat before the channel tunnel was built</td>
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<td>Moorhead station 1865 as extension of west London ‘metroland’ and serving garden cities north of London</td>
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<td>Cannon Street station, 1866, serving the City of London from the south east</td>
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<td>Charing Cross station, 1864, an extension of London bridge station to the north of the Thames</td>
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<td>Broad Street station, 1865, demolished and merged with Liverpool Street station in 1986 to give way to the first comprehensive high density station regeneration project, now being rebuilt</td>
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<td>St Pancras station, 1866, with then the largest single span roof in the world designed by William Henry Barlow, but hidden behind the Victorian façade of the hotel designed by George Gilbert Scott, connections with the Midlands and Yorkshire, totally regenerated with in addition the Eurostar terminal of HS1</td>
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<tr>
<td>Liverpool Street station, 1875, replacing Shoreditch station, linking Essex and East Anglia, as well as Stansted airport</td>
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<tr>
<td>Blackfriars station, 1886, extended over the Thames for commuters from the south to the City, regenerated with ‘solar’ bridge</td>
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<tr>
<td>Marylebone station, 1899, connecting Manchester and later Oxford and outer suburbs, boosting urban sprawl in the unplanned ‘metroland’ till 1933</td>
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Initial rail investment - akin to the tulip craze in 17th century Netherlands – cumulated in a railway mania towards the 1851 Universal Exhibition, although the Royal Commission on Metropolitan Railway Termini had tried to slow it down in 1846, for fear that the influx of passengers would bring the capital to a standstill. It prohibited rail through-routes in the central area of London. This led to an underground connection, the Circle Line, linking the head stations with a smaller gage, used subsequently for the whole underground railway system, built mainly on the north of the Thames, and preventing rail integration to this day. However, this separation preserves the role of the London (mainline) termini which are generating a great concentration of passenger movements and thus extensive commercial footfall in and around them.

\(^2\)firstever UK census in 1801
The myriad of small, often speculative rail companies were consolidated into four main consortia in 1923 and nationalised in 1948 into British Railways, later British Rail, which modernised the network with diesel and electrification. Gradually passengers exceeded freight which had moved onto roads. Under the Thatcher governments in the 1980s railways were subjected to severe cuts and fares were hiked above inflation with the effect that rail journeys decreased. British rail was privatised from 1994-1997 into Railtrack, responsible for infrastructure and Network Rail in charge of operations. The latter was fragmented into many individual private lines run with concessions allocated by the central government.

After decline in the 1980s, rail passenger numbers on the underground, ‘overground’ and buses in London increased again, due to London’s population and economic growth. Modernisation of the transport networks and greater integration contributed also to greater use. Responsibility for an increasing number of ‘overground’ lines, as well as the Dockland Light Railway, new bus and tramlines were transferred to the Mayor of London, directly elected since the creation of the Greater London Authority in 2000. Responsibility for London transport management and operation remained entrusted in Transport for London, now answerable to the Mayor of London. Overall, the shifts toward greater integration facilitated travel for commuters also beyond London. Nevertheless, not all suburban lines were transferred to the control of the Mayor of London. More over, rail fares remain among the highest among large cities worldwide.

Another important accelerator was the introduction of ICT aimed to ease the use of the transportation network in the London region. This included the introduction of the comprehensive ‘electronic purse’, the ‘Oyster card’ which can be used on all public transport modes across Greater London and increasingly beyond. Top-up facilities were reduced with the closure of ticket offices in all stations and the Oyster card was complemented by use of touch-less credit cards and mobile phones with appropriate apps. Passenger information remained patchy though. Electronic timetables at stops were scarce and supplemented by a system of phone numbers which passengers have to call up on their personal mobile phones to obtain travel information. Only recently were maps produced showing all these lines together, however they are hard to read on electronic devices.

3 The last steam train was decommissioned in 1968

4 Notoriously those which have been plighted by severe strikes over modernization in the eyes of the railway companies and job losses and pressures on security in the eyes of the trade unions. The strikes are ongoing but the conservative government did not want these lines to fall under the control of a socialist mayor of London.
4 IMPACT OF RAIL PRIVATISATION

A major impact of rail privatisation was the monetisation of all assets, rail infrastructure as well as railway stations and railway land. To some extent this created a closer link between flows and nodes. Before privatisation the key objectives of railways were the flows, transporting people from origin to destination. Privatisation focused on all assets and especially the income they could generate. While Railtrack remained the quasi public owner of the tracks, railway land and railway stations had great real estate development potential and were regenerated accordingly by the private rail companies, often in cooperation with other developers. This meant that nodes had much greater commercial potential than flows. Various governments rewarded the usual pressures of developers with a host of new planning legislation, including two strategies of particular worth to railway land development. One is the general presumption in favour of development, the other densification of the urban fabric at transportation interchanges. Interestingly, Paul Cheshire found that Iconic design, such as skyscrapers authored by ‘trophy-architects’ were not generating a higher yield than other office buildings and were often harder to let.

5 FROM SHRINKAGE TO EXPANSION

London’s population of 8.6 million was at its peak before the second world war. Population decline, due to the war was exacerbated by the London County Council’s decongestion policy into eight new towns beyond the green belt proposed in the Abercrombie London Plans of 1944 and 1945. After the second world war population continued to decline in inner London, followed by outer London while small market towns were growing in the region and even beyond London’s labour catchment area. Decline persisted until the late 1980s when London returned to growth, contrary to the then theories of urban change.

London’s infrastructure needed adjusting to its resurging population growth from 7.4 to 8.4 million between 2001 and 2011 and rising. In the case of London this has led to speculative symbiosis between transportation and land use. It was also accompanied by a reversion of dispersion and the return of young families to the city centre. The strategy to accommodate such population increase in London was to ease permission of high density, high rise development above and around transportation stations. This concern both railway and underground stations and those of the new Crossrail line.

Developments include the regeneration of the north-south Thameslink, the only rail-track crossing London. To be completed by 2018, this connection is linking Gatwick airport in the south with Luton airport in the north, interchanges with High Speed 1, the Eurostar connection between London and Europe at St Pancras station, was incorporated in the large railway station regeneration at London Bridge. A new east-west connection, Crossrail 1 is also under construction through inner London with a main railway gage. Crossrail 2 linking south-west to north-east London, eventually forking out into not yet determined new regional links is also foreseen to ease movement across the London conurbation.

HS2 high-speed rail is planned to link London to the north west of the country. Variations in London include a HS2 terminus at Euston station on the inner ring giving rise to a major development, a planned link to Heathrow airport, and/or creating a new super-transport hub on railway land, at Old Oak Common in northwest London, again connected to a very large scale regeneration scheme on surrounding public land.

6 1939 estimates
7 See for example: Peter Hall, ‘London 2000’, first published in 1963, where he maintains even in the 1971 edition that London will decline and its population will disperse continuously outwards well beyond the greenbelt into the homecounty market towns.
8 The Mayor’s London Plan 2011 and alternations forecast 10 million population by 2030.
For population forecasts, see also Bell, Sarah andPaskins, James (eds), Imagining the Future City: London 2062, UCL sustainable cities series.
10 Now named Elizabeth II line
11 Heathrow airport is expecting to build a third runway for which it has government go ahead, but no planning permission yet.
These to a large extent publicly funded projects, and many others amount to a massive transformation of London’s privatised rail infrastructure, together with the renovation of the ancient 'overground' and underground rail networks to accommodate the growing increase in rail passengers. The regeneration of London’s termini, including construction with air rights or on adjacent railway land are considered to be essential to co-finance these infrastructure projects.

Fig 2 Crossrail 1 & 2, London

Fig 3. Key diagram for the development strategy of the 2011 London Plan, (Heathrow airport is in the west and Gatwick airport in the south), source: GLA (Greater London Authority)

6 REGENRATION STRATEGIES FOR LONDON'S RAILWAY STATIONS

Transformations of London’s railway stations vary, owing to different heritage rulings over them, but the planning strategy laid down in the Mayor’s London Plan postulates a general principle of increased densities for mixed use at and around transportation interchanges.

The stations are the most expensive part of the railway network regeneration programme. However they, together with their existing termini hotels, are potentially the most lucrative assets. Moreover, their
regeneration is assisted by recent national planning legislation biased towards development\textsuperscript{12} which is favouring investment into large scale, high density, new real estate around and, if possible, above railway stations which are driving up land and property prices in the surroundings.\textsuperscript{13}

A detailed passenger survey comparing 2001 with 2011\textsuperscript{14} shows the numbers of passengers arriving and departing in the main London stations and their on-journeys per mode of transport. Among the half million peak time passengers per day, 36\% are going onward on foot from the central London termini, with potential pedestrian journeys on the increase. This means that these passengers are captive consumers in and around the railway stations. During modernisation railway stations rented out much space to retail outlets, while reducing public facilities, such as seats for waiting passengers and ticket and information offices. Many among the stations which were not constrained by listed building status underwent large scale regeneration programmes, attracting foreign inward investment, letting airspace for high rise, high density real estate above and around the stations, and/or using land of sidings and other redundant rail-land uses for new development. Together these developments helped finance station and railway modernisation and/or expansion to accommodate growing passenger numbers, notwithstanding substantial public subsidies.

Fig 4. Key Old Oak regeneration: transport node densification and real estate based financing

7 IMPACTS OF STATION REDEVELOPMENT ON THE PUBLIC REALM

The question remains how much these regeneration projects are contributing to the improvement of the environment in and around the railway stations for the benefit of those who use the stations and those who live, work and visit around them. This includes 'panta rhei', the ease – and better still attractiveness - of movement inside and around these nodes in the public realm. Station regeneration seems to create a chicken and egg situation. Extensions either above, alongside and/or below stations are increasing the commercial footfall, often with high density buildings and densification which, in turn, increase land values and make it difficult to keep open space free for public use. Planning is the only negotiation power of local authorities, the theoretical custodians of the public interest in their area, especially those which are only minority partners and/or without landholdings there. Increasingly strapped for cash, they are keen to obtain income from property taxation (business and residential rates), which are increasing with property values. The sites

\textsuperscript{12} Defined in the 2012 National Planning Policy Framework as “presumption in favour of sustainable development”
\textsuperscript{14}http://www.tfl.gov.uk/assets/downloads/corporate/central_london_rail_termni_report.pdf
around stations will thus accommodate lucrative real estate, including luxury flats which at present yield four times more rent (or sales value) than office space and tend to displace workplaces accordingly, even in the city centre. A few examples with diverse development strategies illustrate this trend below.

7.1 London Bridge Station, Shard and London Bridge City

The Shard, at the time of its construction the highest building in Europe is possibly the most famous example of property gain. Owned by Sellar Property and the State of Qatar, designed by Renzo Piano and inaugurated in 2013 it rises 310 m above London Bridge Station. The Shard is accompanied alongside by London Bridge City developed by St Martin’s Property Corporation and Cushman & Wakefield and masterplanned by Twigg Brown Architects. The station regeneration by Nicolas Grimshaw followed, including vast refurbished spaces under the railway arches, an elegant roof over the platforms and tall buildings above. The entrance floor of the Shard accommodates a new open pedestrian area to access the station concourse and to reach the surrounding ground level by escalator or on walkways along vehicle access routes. The new elevated ThamesLink track\(^\text{15}\) has triggered development but is also constraining the station forecourt which is not an inviting place to linger, not least owing to the wind turbulence created by the Shard.

7.2 Stations in the City of London

Part of the densification of the City of London is taking place with skyscrapers above and around railway stations. Cannon Street Station was the first to accommodate an air right building, a suspended structure by ARUP to leave the railtracks unimpeded, completed in 1965. Only the twin towers of the original station of 1910 overlooking the Thames remained during the various developments which followed. Foggo architects designed the latest air-right office building above the refurbished mainline and underground station, completed in 2012. Air-right buildings became widespread also above roads in the City of London.

In 1990, the remodelling of Charing Cross Station designed by Terry Farrell needed to guarantee complete flexibility for the future use of the railtracks and led to a building entirely suspended from an arch. No public realm was created and the new pedestrian bridges suspended either side of the railway bridge over the Thames end in narrow, convoluted passages leading to the station.

Broadgate was a massive development above and around Liverpool Street Stationin the mid 1980s by Rosehaugh Stanhope designed by SOM and ARUP. It involved the demolition of adjacent Broad Street station and the redirection of the tracks to Liverpool Street station, thereby liberating a large development site of 13 ha. At present - less than three decades later - Broadgate is undergoing a second phase of regeneration and densification by British Land and the Blackstone Group. For the first time a development company privatised the entire public realm, including Broadgate Circle with a temporary ice rink and Exchange Square above the station, although it includes public access to the railway station. Restructuring, densification and extension is proposed by the current owner-developer British Land on this site part of which has been incorporated into the jurisdiction of the City of London from the adjacent much poorer London Borough of Hackney.

7.3 King’s Cross and St Pancras stations, Eurostar Terminal and Railway Land regeneration

A large scale development is still under construction after a lengthy planning process and strong local resistance on the site north of Kings Cross and St Pancras stations. In the mid-1980s four developers were invited to produce development plans for a 40 ha site, before the HS1\(^\text{16}\) was rerouted to St Pancras. The current masterplan of Alies Morrison was granted planning permission in 2006. It concentrates on the southern 26 ha near the railway stations which contains a number of listed buildings, owned and regenerated by the King’s Cross Central Limited Partnership.\(^\text{17}\) King’s Cross and St Pancras stations have been developed into a major transportation interchange with national railways to the north of the country, ThamesLink across London, the Eurostar to the European continent and six underground lines. This generated a large potential for developers and commerce but produced little convivial public realm. While

\(^{15}\) originally resisted by the wholesale market stall holders nearby a sit encroached on their land holdings

\(^{16}\) HS1: First High Speed railway in the UK connecting London to Paris, Brussels and further afield through the Eurotunnel.

\(^{17}\) consisting of Argent King’s Cross Limited Partnership, London & Continental Railways Limited, and DHL Supply Chain.
the forecourt between Euston Road and St Pancras station serves mainly the refurbished listed station hotel and private condominiums the space in front of King’s Cross station is being gradually liberated of its clutter, and offers a view on the façade, historically the first in which the railway arches are apparent. However a new entrance hall designed by John McAslan and Partners has been added on the side of the station, opposite the entrance to the Eurostar terminus situated on the lower St Pancras concourse. The only place which comprises a convivial public space toward Euston Road is the British Library designed by St John Wilson, built on land of the closed Midland railway station on the west of St Pancras station.

Although the bulk of the King’s Cross railway land development north of the station is commercial, it includes historic buildings refurbished into new uses and provides public spaces. The 67 acre site is developed by the King’s Cross Central Limited Partnership. A large public space with fountains, sloping to Regent’s canal has been designed in front of the historic Granary building converted into the Central St Martins University of the Arts London, the Lethaby Gallery and the Platform theatre. From there a boulevard leads to the railway stations. A number of international headquarters, including Google and Microsoft have chosen to relocate their headquarters to this site which also accommodates the Francis Crick Institute of biomedical research. On as yet not developed land, the developers had given permission to build three temporary theatre stages, two of which have already been demolished. How imaginative it would have been to keep the theatre activities on the ground level and confine the commercial building above. Such vast developments take generations to realise. Once completed this site is considered to become the third London centrality, besides the financial City and the commercial and cultural West End. The question remains whether centrality means that a liveable balance exists between ‘panta rhei’, flows to central London, through it, or interchanging to other more localised movements and nodes - ‘reliqua pacificae’ - where people really wish to stay or linger?

7.4 Victoria station

Some London railway stations act as catalyst for the regeneration of the whole existing neighbourhood surrounding them. Victoria Station is the first example of a station redevelopment which has adopted a Business Improvement District (BID). Although financed by commercial building users, this ‘place-shaping’ BID includes vast sways of demolitions and reconstructions around the station, together with privatisation of the public realm on the ground level which is shaped and will be managed by the BID company. Its declared priorities are safety and security, cleanliness and greening, a prosperous local economy, as well as a destination for, and showcasing Victoria. It operates on a five year plan under contract with the local authority, the City of Westminster. The BID area reaches far beyond the station eastwards along Victoria Street, a shopping high street with many government offices. It encompasses the redeveloped Stag Place, a nineteen sixties commercial development which is undergoing more refurbishment, transforming office blocks into condominiums, together with areas up to Buckingham Palace, the home of the Queen in the north and a national coach station in the south. Most of the blocks surrounding Victoria station have been demolished and are being rebuilt at much higher densities. Only the historic theatres are spared and will undergo substantial refurbishment as well. The forecourt spanning across what is in fact two station buildings remains problematic as it accommodates bus stops, thus not leaving any open space for urban encounters and mingling. Another BID project transforms spaces under elevated railtracks in Southwark with a new walkway along this new footfall for commerce complementing the South Bank cultural sites along the Thames.

Similar developments are taking place in and around a large number of London railway stations, including in the suburbs and the East End. There the regeneration of Stratford East and Stratford International stations have benefited from the development of the Olympic site for the 2012 Olympic games, constituting part of the lasting legacy project which includes a large park claimed to create a new centrality in the East End.

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18 the inner ring road of London, delimiting the congestion charge zone
19 comprised of Argent King’s Cross Limited Partnership - Argentand Hermes investment Management -BT pension scheme and Australian Super – pension fund
20 BIDs have originated in North America. In the UK they are partnerships between local authorities and local businesses willing to provide additional services and/or improvements to a specified area. Agreed by ballot they are financed from an additional levy of business taxes.
8 CONCLUSION

What these railway station and railway land regeneration schemes have in common is the very long timeline they necessitate for implementation. Often the size of the site and the public interest vested in these schemes require acts of parliament. Their investment is extremely large and can only be provided by complex consortia of stakeholders, but none of them would go ahead without considerable public subsidies. Their implementation tends to stretch over several business cycles and it is not uncommon that some of the stakeholders disappear into administration during this process.

Unsurprisingly there is opposition from residents and businesses displaced by these developments. Such schemes tend to be delayed also by protesting local activist groups, some with counterproposals which, however, stand little or no chance of fruition. An example is the alternative designed by the local community for the whole site north of King’s Cross station with lower densities, less offices, more communal services and a string of open spaces. The local community achieved to save Camley natural park which they had created on the derelict Kings Cross site. They even managed to achieve a compromise as the local authority, the London Borough of Camden, had prepared a brief for a community friendly alternative in the central part, inviting ideas from the local communities.

All these schemes claim to improve the London economy, its environment and the quality of life of their users. Are they really doing this? So far, most of them have not contributed to a better, more liveable urban environment. Quite the reverse. Despite massive public investment and subsidies, the ownership of public land, most built spaces and also the public realm have been transferred into private hands. However, none of the open spaces either refurbished or created by the private sector around the stations involving international designers and global developers have the quality of a genuine public realm where passengers and other Londoners are at ease to congregate and dwell. It may be worthwhile reflecting that the much frequented open space in front of the British Library, right next to the massive King’s Cross and St Pancras stations redevelopment was created by the public sector which owns and manages it: a genuine ‘reliqua pacificae’ to complement the very busy adjacent ‘panta rhei’.

21 http://www.kxrlg.org.uk/group/history.htm