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Opportunistic Destinations: Transforming Railway Stations into Sustainable Urban Centres

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ABSTRACT
All over the world stations are changing to become new urban centres and destinations. Some flagship projects, like Atocha in Madrid or Grand Central in Manhattan, make great destinations with shops, restaurants, museums and exhibition spaces. The urban spaces around them have been redesigned to provide excellent public areas and rationalise functional needs. Suburban stations also have the potential to follow the same trend. After all, stations are places of high symbolic value, they are central to the life of many people and include all sections of society, while generating high footfall and stimulating the economy. For this reason, Station Master Planning must focus on ‘place’ as well as ‘product’ to respond to the multiple opportunities. Considering the need that designs of stations need to be sustainable and preserve and value the public spaces, this paper reflects on the case study of the station master plan of the Tottenham Hale Station in London where SKM Colin Buchanan applied opportunistic urban design principles and created a new, significant urban square for north London and a local destination for leisure and investment. The design methodology are transferred to the local context of Melbourne where the unique spatial circumstances of suburban stations along the New Regional Rail Link line are reviewed, highlighting how these stations possesses specific opportunistic and sustainable urban design answers.

Keywords: Opportunistic Design, Urban Centres, Public Spaces, Master Planning.

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The Nature and Troubles of Urban Centres

The global economic crisis has prompted two parallel debates about the nature and workings of urban areas. In battered Western economies, consumer spending has rapidly decreased and shopping is no longer promoted by Governments as the goal of a strong society. In the UK, the Government has launched a campaign to diversify the economy away from consumerism - and at the same time, launched a review to identify what would stem shop closures and re-launch town centres (The Portas Review, December 2011).

In parallel, new studies on urban societies are focusing on subjective aspects of ‘Quality of Life’ and well-being, which include sense of belonging, community and other indicators that point to urban identity. Urban centres, of course, are key to identity and social interaction: they are the places of encounter and activity: the places that give their name to whole communities. Strong centres play a key role by creating necessary focal points at the urban scale, and connect spaces to living communities (Alexander, C. 2002).

A new way to sustain urban centres as community places, without ever-expanding retail must be found. Prof. Laura Vaughan of University College London has studied for years the nature of suburban centres from a social, spatial and historic perspective. Her recent work indicates that shopping is often a ‘collateral’ activity, and that in history, centres develop, move or die according to the breath and range of functions that they have and (very importantly) according to the transport system (Vaughan, L. 2009).

Transportation connects parts of cities and helps shape them, enabling movement throughout the city. The various different transport systems help define the quality and character of cities, and make them either friendly or hostile to pedestrians; and walking creates contacts and communities. The best cities are the ones that elevate the experience of the pedestrian while minimizing the dominance of other modes of transport. Stations are linked to high density urban environments where walkable communities can flourish (Elkin et al, 1991).

The Opportunity: Stations as Destinations

The opportunity is therefore very clear. Stations are not only essential to sustainable mobility and a way to reduce car commuting. They can be destinations and drivers of
local economies: the foundation and originators of sustainable urban centres for the next generation. Stations support a sustainable urban form (Barrett, G. 1996). Acting as centres for urban communities, they initiate activity centres that in essence provide the three pillars for sustainable development, supporting social, economic and environmental outcomes. After all, stations have high symbolic and place-making value: many locations take the name or change name after the station name. Grand Central in New York names the whole district, and inspired books and films. Paddington Station in London has even named a teddy bear and a book series. They instantly provide a profile and identity to their locality. The grand designs of some stations have also given cities the civic buildings are necessary anchors to cohesive and progressive societies.

Stations, even the smallest suburban ones, are also central to the life of many people: like many, I take the train to work every day and meet people there, use the hairdresser of the station, know the guys that hold the grocery store, and so on. All sorts of people use stations, with no distinction of class or origin; they meet and mingle, in a place that is inclusive and dense in social interaction. Because of their role, stations generate very high levels of concentrated footfall. In many places, the footfall is actually sufficient to support and sustain a public space with shops and cafes. The normal rule of thumb is 500 people per hour can support a small independent shop or cafe. In London, all suburban stations generate 3-4 times that much and main stations have about 10 times as many people walking to or from the station, and 50 times as many interchanging between modes: stations have more footfall than most corresponding shopping streets!

Figure 1 - Footfall between modes of transport at London Euston (Major Station) demonstrating the very high interrelation with the street, 2008 Data Survey, SKM Colin Buchanan
Combining town centres (struggling to generate footfall) with stations, appears to be the obvious and sustainable response to the troubles of shopping streets. This is further reinforced by evidence that good transport is spatially linked to job density: where there are jobs there must be good transport – and where there is good transport there can be jobs. SKM Colin Buchanan provided sufficient proof of this correlation that the UK Parliament agreed to proceed with new rail infrastructure in London, and justified an additional levy on businesses\textsuperscript{4}. This is illustrated in the graph below.

![Graph illustrating correlation between station and job density](image)

**Figure 2 - Correlation between station and job density, based on London, SKM Colin Buchanan, 2007**

Famous stations all over the world like Atocha in Madrid, St Pancras in London or Grand Central in New York are transforming to become destinations, as well as stations: places where the concourse is also a meeting place, a green glasshouse or a ballroom for celebrations, and shops, museums, exhibitions, medical centres and other facilities congregate. The need is to ‘fertilise the city’ with these initiatives – taking them outside and integrating them with the streets.

The model also works, perhaps even better, in the suburbs, where issues of identity and the sustainability of urban centres are more difficult.
To achieve this goal, stations should not be designed as ‘products’ and functional pieces of infrastructure: they must be ‘places’. This is what SKM did, when commissioned by Transport for London (TfL) to provide a pre-feasibility study for Tottenham Hale Station, in the north London suburbs, an area affected by poverty and poor employment. The station provides an important connection between rail (including a link to one of the airports) and the metro system. It is perceived by the local council as a gateway to jobs elsewhere in the city. The station, however, is one of the ugliest places in London: a complicated jumble of bus and other access roads, with a diminutive entrance to one side, and surrounded by mighty through-roads and retail sheds. The fun architectural details added to the station by architect Will Alsop in 1991 were a brave approach, but now, a bit tarnished by time, they are only a faint mitigation to the harshness of the whole space.

When SKM started working in 2007, we knew we had to look at more than station capacity and efficiency of interchange. We had the opportunity to look at ‘place’ and create a new urban centre. The conditions were ideal: we had a fabulous team covering the full range of transport demand and transport planning, led by the in-house Master Planning team and architects for station design. The client team was equally strong and committed: a combination of very experienced professionals of the TfL Interchange Team, other representatives of all transport modes, the Greater London Authority and the planners of the local council.

Embracing a much wider perspective was possible through dialogue between stakeholders and structured explorations of scenarios until a win-win situation was found. In this particular case, we used ‘multiple references’ by finding transport justifications for urban design improvements, and by proposing an economic and delivery framework for place-making and change.

For example, we extended the survey of passenger movement and were able to demonstrate that many people walked to and from the station to the nearby areas: less than the number of people changing trains within the station, but many more than originally thought. The opportunity was to present the creation of a public space in terms of transportation benefits: a space to be used to ‘distribute’ pedestrian movement away from the station, in an efficient and effective manner; direct, safe, step free and directly linked to the road crossings to the residential neighbourhoods.
At the opposite end of the spectrum, we explored the station area as a destination in itself and as an opportunity for investment. It was necessary to agree on the correct ‘pitch’: sufficient change to create a new urban heart for Tottenham, and a place of pride and investment, but also appropriately scaled to this area and this community: the outside environment, the square and buildings, essentially belonged to local communities and should be designed in a way that would enhance their identity and daily life. The square allowed the connection between formerly divided housing areas, light industry and retail; it offered seating, a fountain and opportunities for public art and it included a café, small restaurants and four other shops.

The final Master Plan created a new, significant urban square for north London and a local destination for leisure and investment. The square replaces existing roads and turning loops outside the stations, provides the catalyst for new development above and beside the station, and rejoins the northern and southern sides of Tottenham Hale. But it also performs as an external concourse, distributing movement between rail, buses and street, achieving considerable journey time savings and clarity of routes.

Now, three years after completion of Master Plan study, and in a period of financial constraints, implementation at Tottenham Hale is getting closer; pre-planning consultation over the creation of square and bus station took place in October 2011 and the works to modify the adjoin roads is timetabled for late 2012.
Melbourne New Regional Rail Link: a Great Opportunity

Just as stations in major city centres can be destinations and drivers of local economies, the model can also be applied to suburbs, where issues of identity and the ongoing sustainability of these communities are paramount in their context and survival (Engwicht, D. 1992). This is indeed the case for many suburbs in the outskirts of the Melbourne area. The population of Melbourne is set to grow more than one million by 2030. Higher population will locate in identified growth areas, with centres located in North Melbourne, West Melbourne and South East Melbourne. This will require a change in the overall urban footprint of the city changing from a monocentric city with one major CBD centre, to a polycentric city with multiple CBD-like centres.

In response to these growth needs, The Regional Rail Link project has jointly been funded by the Victorian State and Commonwealth Governments, providing opportunities for the stations along this line in the West Melbourne corridor to initiate new and future urban CBD-like centres.

As part of the Work Package C Alliance Works of the Regional Rail Link Project, the design and construction of four new stations in the Footscray to Deer Park section has considered initiatives for the stations to be catalyst of growth and sustainable development.

According to the Footscray Station precinct Planning and Urban Design Framework (2009), the vision for the future of the Footscray precinct is to provide a place which aspires for:

- Liveability: a highly prized living and working community with a sense of place
- Economic growth: a premier destination centre, with various services, civic functions, shops, entertainment and reinforcing the market as a regional hub
- Economic sustainability: a learning community, training and business innovation centre.

Acknowledge the opportunities along the corridor, Footscray Station as well as West Footscray Station opens up the opportunities to become new urban centres and destination hubs.
The upgrade of Footscray Station, and the redevelopment of West Footscray Station take into account the urban transition of city to country, and the station designs apply the principles of best practice sustainable urban design such as; Identity, Connectivity, Ecology, Humanity, Regeneration and Sustainability.
At Footscray Station the forecourt initiate a new focal point, resulting in an urban square to connect the existing Footscray Market with commercial and mixed use residential development opportunities creating unique character and sense of place. The station forecourt, the new urban square also acts as a precinct landmark, providing ease of way finding and distributing movement between rail, buses, street, and pedestrian pathways.

![Figure 6: Footscray Station Forecourt as new Urban Centre and Focal Point, RRL Footscray Deer Park Alliance, 2012(*Image by Hassell)](image)

The stations along the RRL corridor provide opportunities to become destinations that promote green, sustainable places. As centres for compact, walkable urban places, the stations result in opportunities where the combination of human scale urbanism, with a mix of uses and services, a range of housing options, extensive train systems, and the ability to walk and bicycle as part of daily life all make for sustainable, green living. Using the Sustainable Design Integration Framework developed by SKM as guidance, for design of stations and adding safe, clean, renewable energy into the mix, true sustainability results.
Conclusion

This paper argues strongly that stations are places of high symbolic value, transit centres that have the potential to be centres for urban communities, initiate activity that in essence provides the three pillars for sustainable development, supporting social, economic and environmental outcomes. Strong centres play a key role by creating necessary focal points at the urban scale, and connect spaces to living communities: the opportunity created by railway stations for cities and neighbourhoods should never be wasted.

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