

‘SLICING THROUGH SPACE’

Mobility, Rhythm and the Abstraction of Modernist Transport Planning

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Providing for the movement of people and things is an inevitable and increasingly important element of urban governance. Urban life in Australian cities has been physically structured around the private motor vehicle, and transport policies have historically focused on the public funding of large-scale public roadways. There is no better example of this approach to transport planning than in Southeast Queensland, where government departments associated with responsibilities for road infrastructure have traditionally wielded enormous power, and have repeatedly attempted to impose large-scale technological solutions for transport problems without regard for their wider impacts on urban life. Despite an emerging awareness of the need to reduce carbon emissions by establishing alternative models of urban mobility, local authorities in Brisbane have recently followed in this well-established tradition by embarking on an ambitious expansion of river crossings and underground road tunnels as a way to increase the capacity of private vehicular flows through the inner city. This article is an exploration of the philosophical framework ‘driving’ these political decisions and their inevitable imposition of new spatio-temporal laws on Brisbane’s inhabitants. Drawing on Henri Lefebvre’s account of the relationship between the production of space and social rhythms, it is argued that these transport planning decisions and the way they govern mobility will reproduce the destructive effects of abstraction on both space and the rhythms of the city.

Well I got us on a hiway, I got us in a car
I got us going faster than we’ve ever gone before.¹

Motors in all directions, going at all speeds. I was overwhelmed, an enthusiastic rapture filled me. Not the rapture of the shining coachwork under the gleaming lights, but the rapture of power. The simple and

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¹ Mercury Rev (1998) ‘Goddess on a Hiway’.

ingenuous pleasure of being in the centre of so much power, so much speed. We are a part of it.²

Introduction

If you stand, eyes closed, at any point of the inner southern banks of the Brisbane River facing the city centre, you are immediately conscious of the incessant, background drone of commuter traffic travelling overhead across the Riverside Expressway. Elevated above the South Brisbane reach of the river, the expressway crosses the river to the south of Gardens Point and cuts through the southern suburbs, providing access to the main high-speed transport route between Brisbane and the Gold Coast. Completed in 1976, this piece of transport engineering is a monument to the grand designs of the *Brisbane Transportation Study*, produced by the American consultants Wilbur Smith and Associates in 1965.³ The stark contrast between its streamlined concrete curves and the stretches of remnant mangroves below makes a distinctive visual imprint on Brisbane's inner-city riverine landscape, one which is obvious to the visitor. It stands as the most definitive local statement of the high point of a brutalist modernism in transport planning, strongly biased towards organising city form and structure around the requirements of the private motor vehicle. Symbolically, the expressway marks a key moment in the transition of Brisbane from a sleepy country town to an emerging metropolis that now has the highest population growth in Australia.

Despite extensive daily usage, until recently its role in Brisbane's planning history has not been widely acknowledged and its place in the landscape has largely been taken for granted. If nothing else, this demonstrates the way in which the most visible of structures — the product of such enthusiastic design and expense — can, over time, become rendered invisible in everyday practice. However, Brisbane commuters began to take a much keener interest in the Riverside Expressway and its role in their daily routines when various parts of the structure were closed to traffic for safety reasons for ten days during October 2006. This closure temporarily caused dramatic changes in peak-hour travel behaviour, and prompted much public debate about the city's reliance on this transport landmark. Incumbent conservative Lord Mayor Campbell Newman used the disruption to good effect as a justification for his pre-existing plans to pursue an ambitious and costly expansion of river crossings and underground road tunnels, aimed at boosting the speed and capacity of private vehicular flows through the inner city. Passing under the label of TransApex, this collection of public and privately funded infrastructure projects represents a remarkable revival of the planning tradition that produced the Riverside Expressway.⁴

² Le Corbusier (1971), p 3.

³ Wilbur Smith and Associates (1965).

⁴ Traffic congestion emerged as the dominant issue in the recent Brisbane City Council election held in March 2008, where Newman was decisively returned to office along with a solid majority of conservative councillors. This result has been presented by Newman as an endorsement of TransApex as a model for the future of

The Brisbane City Council has presented TransApex as one (albeit crucial) component of an 'integrated and balanced transport strategy' designed to free up congested inner-city roads for enhanced public transport and pedestrian access.⁵ However, many questions have already been raised about the economic, social and environmental costs of the discrete projects that constitute TransApex, and if the overall plan is completed, it will clearly have profound impacts on the spatial structure of Brisbane's inner and middle-ring suburbs.⁶ This article is a contribution to this debate, but adopts a slightly different focus from much of the existing literature by exploring the philosophical framework underlying these projects. Engaging with the theoretical writings of Paul Virilio and Henri Lefebvre, it argues that behind council's rhetorical attachment to 'balance' in transport modes lies an overwhelming bias towards entrenching the role of the private motor vehicle as the dominant mechanism of mobility in Brisbane. Virilio's argument that the contemporary world is shaped by a logic of increasing speed provides part of the explanation for the obsessive desire of Brisbane's public authorities to fund and build enormous infrastructure projects such as TransApex to resolve short periods of peak-hour traffic congestion. However, his account does not adequately connect this modernist paradigm for the governance of urban mobility to larger struggles over the political and legal ordering of space. By contrast, Lefebvre's theory of the production of space provides us with a helpful lens through which we may observe how TransApex will reinforce a transport model that prioritises and subsidises the private motor car. These new freeway projects can be understood in Lefebvre's terms as contributions to the reproduction of abstract space — the fragmented, homogeneous and hierarchical space engendered by the state and capital's domination of urban life.

Abstract space is buttressed by what Lefebvre describes as a 'logic of visualisation',⁷ which flattens the depth of social reality to a readable surface while paradoxically rendering taken-for-granted spatial structures (such as roads and motorways) as invisible and beyond critique. In turn, abstract space is associated with an abstract and quantified social time, dependent on the pre-eminence of linear repetition over other rhythms of the city. The construction of freeways through the inner and middle-ring zones of the city cements an unrelenting, repetitious flow of high-speed traffic as the dominant rhythmic mode. It will be argued in this article that TransApex's reproduction of abstracted space and time will impose an invisible set of spatio-temporal laws, structuring the transport choices and behaviour of Brisbane commuters into the future.⁸ Consequently, political strategies aimed at resisting the logic of abstract

urban transport in Brisbane. (See 'Brisbane's Transport Woes Top Election Agenda', www.abc.net.au/news/stories/2008/03/13/2188267.htm, 13 March 2008; and 'Man with the Plan Tags Road Jams', www.news.com.au/couriermail/story/0,23739,23352164-3102,00.html, 10 March 2008).

⁵ Brisbane City Council (2007), p 9; Brisbane City Council (2006), p 49.

⁶ Nightingale (2006); Dodson and Sipe (2006b); www.rag.org.au/tunnel.

⁷ Lefebvre (1991), p 98.

⁸ Winner (1977), pp 323–24.

space-time must not only be concerned with the reappropriation of physical space, but must promote a reassertion of alternative rhythms of movement through space to that of the freeway-bound motor car.

The Governance of Mobility in the River City

Providing for the movement of people and things is an inevitable and increasingly important element of urban governance. Urban life in most Australian cities is physically structured around the requirements of the private motor vehicle, whose dominance has been largely assumed and supported by most transport planners and political actors. Historically, urban transport policies have focused on the public funding of large-scale road infrastructure, which has closely enmeshed urban governance within what John Urry describes as the 'system of automobility'.⁹ This 'system' has helped to subordinate decision-making about land use, the built environment and landscape design to a complex web of industrial, technical and social linkages surrounding the production and consumption of automobiles and their environmental resource use.¹⁰

There is perhaps no better demonstration of this system in action in Australia than in Southeast Queensland. During the 1960s and 1970s, state government departments associated with development decisions, road infrastructure and local government operated a highly discretionary model of decision-making, circumventing formal mechanisms of administrative transparency. This helped to fragment those parts of the state public sector concerned with land use management into a collection of client-servicing agencies for particular industry sectors. One obvious example is the way the Queensland Department of Main Roads, which has held overall responsibilities for major road infrastructure since the first half of the twentieth century, has wielded enormous influence over land use decision-making and the urban planning of Brisbane. It has regularly proposed large-scale technological solutions such as freeway developments to accommodate the ever-present problem of peak-hour traffic congestion, demarcating such projects from other aspects of land use planning.

Between the late 1960s and early 1980s, a fertile source for many of the Department of Main Roads' proposals was the *Brisbane Transportation Study*, released in 1965 by the engineering consultants Wilbur Smith and Associates. In addition to this report, the firm also secured appointments to draw up transport plans for Melbourne, Sydney and Hobart, ultimately playing an incredibly influential role in shaping the philosophical approach of public sector transport planners in Australia over the past four decades.¹¹ Reiterating Smith's own views that a 'modern, well-planned system of express-highways' was the most appropriate model of transport for the dispersed suburbanised city, the firm's recommendations for Brisbane were dominated by new freeways and expressways to link all areas of the Central Business District (CBD) to the

⁹ Urry (2004), p 25.

¹⁰ Sheller and Urry (2000), p 738.

¹¹ Marsden (2000), p 39; Davison (2004), p 179.

freeway system.¹² The *Brisbane Transportation Study* proposed the construction of 80 miles of freeways, four expressways, five cross-river bridges, the replacement of trams and trolley buses with diesel buses and the removal of several comparatively lightly patronised segments of the existing urban rail network.¹³ The tram and trolley-bus systems were abolished, but less than half of the infrastructure projects originally proposed were constructed. Nevertheless, the Wilbur Smith study's approach to future road development across the city had a central influence on two generations of transport planning practitioners, and a number of its recommendations lay dormant within transport bureaucracies throughout the 1980s and 1990s. As a result, there have been several political campaigns to resist plans by the Department of Mains Roads that had their origins in the *Brisbane Transportation Study*.¹⁴

Over the past five years, the TransApex suite of projects has emerged as a contemporary restatement of this tradition of brutalist modernism in transport planning, which recognises the construction of major roads as the only real solution for peak-hour congestion and long cross-town journey times. This transport plan replicates the pathway of a number of the recommendations of the 1965 report, while incorporating the use of tunnels to circumvent existing surface roads and supposedly minimise aesthetic disruption to the existing urban landscape.¹⁵ Although the traffic will eventually have to emerge into the open air, the use of tunnels in the plan has been used rhetorically to emphasise the 'invisibility' of its component parts.¹⁶

¹² Wilbur Smith (1961), p 57 (quoted in Davison, 2004, p 179).

¹³ Wilbur Smith and Associates (1965), pp iv–v and 171–78.

¹⁴ A well-known example is the 1970s struggle to preserve the inner-city residential suburb of Bowen Hills from an earlier freeway proposal, and the ongoing unofficial presence of this plan within the bureaucracy into the 1990s. See Mullins (1979); Mullins and West (1998); Gray and Lane (1982). A classic defence of the subordination of urban space to the rule of the car is expressed by Russell Hinze (Queensland Minister for Local Government and Main Roads between 1974–87) in the film *The Battle for Bowen Hills*: 'Whilst there may be some airy fairy thoughts that we're going to make everybody use public transport, that will not happen. The Australians have indicated in no uncertain terms that they intend to use their motor cars.'

¹⁵ The projects currently part of the TransApex plan are: (1) the Clem Jones Tunnel (formerly known as the North–South Bypass Tunnel), a cross-river tunnel that will link Woolloongabba to the northern suburb of Bowen Hills; (2) Airport Link (a tunnel to link the inner city and the North–South Bypass Tunnel to Brisbane Airport); (3) the Hale Street Link (a toll bridge across the Brisbane River designed to connect traffic between the inner northern suburbs and South Brisbane); (4) Northern Link (a proposed tunnel to link the western suburbs to the inner-city suburb of Kelvin Grove); and (5) East–West Link (a proposed cross-river tunnel due for construction post-2026, to directly link the Pacific Motorway from the south to the western suburbs by avoiding the inner city).

¹⁶ A map of the locations of proposed TransApex projects and their relationship with the existing road network of inner Brisbane is available in Brisbane City Council (2007), p 34: Brisbane City Council, *Draft Transport Plan for Brisbane 2006–2026*,

Council has presented TransApex in its planning documents as a complete ring road system that will form the backbone of a fully integrated orbital road network, while simultaneously contributing to a 'balanced' transport plan which integrates private motor vehicle usage with various modes of public transport, cycling and walking.¹⁷ However, each project has been conceived as a discrete public-private partnership with individual timeframes and funding arrangements, so core elements of the overall plan are yet to be approved or financed.¹⁸ This makes it difficult to assess the potential efficacy of the partial ring road that will be created through the currently approved components of TransApex. Equally questionable is council's rhetorical commitment to 'balance' in transport planning, which has often been used in other Australian jurisdictions to mask a policy preference for road-building and public subsidisation of private car use.¹⁹ Such a preference is apparent in the preliminary estimates of public sector expenditure in the *Draft Transport Plan*.²⁰

Apart from the immediate spatial impacts on the inner city that will be generated by the construction of the TransApex projects, it is also highly likely that full implementation of the plan will have significant impacts on the spatial structure of the city. We can observe how even the limited construction of the freeways proposed by the *Brisbane Transportation Study* during the 25 years following 1965 profoundly increased settlement patterns to the west and southeast of the city from the early 1970s onwards.²¹ In addition, these road links and the unrealised projects contained in the *Transportation Study* imposed a certain spatial order on the city's inhabitants, by entrenching the hegemony of the private car as the dominant means of travel within Brisbane. Effectively, this plan and its physical manifestations have operated as a type of spatial legislation, funnelling travellers through designated pathways and diminishing the viability of alternative forms of mobility.²² Just as the early embrace of the 'steel and petroleum car' in the early twentieth century locked societies into

www.brisbane.qld.gov.au/bccwr/plans_and_strategies/documents/20071121_drafttransportplan_v2.pdf

¹⁷ Brisbane City Council (2007), pp 32–33.

¹⁸ Detailed public information on the environmental impacts, financial feasibility and construction of the projects are available through Brisbane City Council's *TransApex* website: www.brisbane.qld.gov.au/transapex.

¹⁹ Brisbane City Council (2007), pp 9, 12, 14, 31 and 46; Gleeson et al (2003), p 219.

²⁰ Despite the need for dramatic increases in infrastructure investment for alternative modes of transport, the *Draft Transport Plan* proposes that during the next two decades, 53 per cent of public sector transport expenditure will be spent on road construction and maintenance, while public transport and cycling will receive 47 per cent: Brisbane City Council (2007), p 46.

²¹ Heywood (1990), p 12. Heywood argues that, in some respects, the *Brisbane Transportation Study* 'exerted a stronger influence on the development of settlement form than did the (1965) Town Plan'.

²² Harris (2007), p 8. For an argument about the legislative nature of technological innovation more generally, see Winner (1986), p 29, and Winner (1977), pp 323–24.

'path-dependent patterns' of mobility, the widespread acceptance of inner city freeways as solutions to the problems of traffic congestion has created a template for urban transport that has been difficult to dislodge or amend.²³ With the adoption of TransApex, the local state has demonstrated its continued adherence to this form of spatial ordering. Each of its component projects represents both a set of physical laws about how the city's space is to be traversed and an enormous disincentive to those considering the use of alternative modes of transport to the private car. But just as a previous generation of road infrastructure projects has merged into the cityscape, these new structures are likely to soon become an invisible and unremarkable element of Brisbane's built environment.

Cars, Freeways and Speed

The political agenda driving the push towards the TransApex projects revolves around the urgent need to reduce peak-hour congestion within Brisbane's inner city and along major arterial roads. There is no doubt that long traffic delays have a significant impact on the everyday lives of many commuters who regularly attempt to enter or pass through the inner city at the start and conclusion of the working day. This daily 'crisis' is clearly the source of much real anxiety for those forced to regularly commute by private vehicle, and has heightened the political attractiveness of engineering and infrastructural answers to the problem. However, it is equally clear that during the working week the congestion problems in Brisbane are very 'pointed, in that peaks are tall and relatively short'.²⁴ Rather than being caused by insufficient road capacity, Brisbane's congestion problems are largely the result of the spatial separation of workplaces from the suburbs and a heavy concentration of employment within the CBD. Nightingale explains the everyday movement of commuters to and from work through the metaphor of a tidal flow. The city's road system is subject to the demands of this tide, which carries with it two intense peaks, followed by long troughs for much of the rest of the day, during which arterial roads are free of major congestion.²⁵ The dramatic transformation of Brisbane's urban landscape and the enormous cost to residents that will result from the full implementation of the TransApex projects are aimed at rectifying a relatively short-lived, daily temporal dilemma.

In addition to these doubts about the necessity of the TransApex plan, numerous critics have challenged its ecological and financial responsibility. The enthusiasm of Brisbane's municipal authorities for a transport plan which further reinforces the centrality of private car usage deserves particular scrutiny at a time when the role of sustainable transport systems in the design and organisation of urban space is taking on a new urgency.²⁶ Both the relatively recent explosion of international interest in means to reduce carbon emissions

²³ Urry (2004), p 27.

²⁴ Nightingale (2006), p 416.

²⁵ Nightingale (2006), p 416.

²⁶ Low and Gleeson (2003); Williams (2005); Mees (2000); Newman and Kenworthy (1999).

and the emergence of oil vulnerability as a threat to the long-term viability of Brisbane's suburban landscape raise pertinent questions about the wisdom of TransApex.²⁷ Dodson and Sipe point out that global oil insecurity in recent years has not been factored into the funding model for TransApex and a number of commentators have criticised the inadequacy of its public-private partnership model to adequately insure against risks associated with major transport infrastructure projects.²⁸ Campaigns against the various elements of the TransApex plan have been run by a number of community organisations, including Communities Against The Tunnels (CATT), Community Action for Sustainable Transport (CAST) and the Stop the Hale Street Bridge Alliance. These groups have argued that the increased traffic that TransApex will inevitably promote will raise levels of air pollution and have a destructive impact on existing residential areas close to where the projects will be built.²⁹

One reason why these community activists have so far had very little success in resisting the push towards TransApex is that they are up against the structurally embedded dependence of Australian society on the motor car. This dependence has manifested itself functionally, through the postwar emergence of the deconcentrated suburban spatial form of Australian cities. In many parts of Brisbane, private forms of transport have been necessary to enable residents to traverse large areas between suburbs that are poorly serviced by rail and buses. The expansion of car ownership was also a necessary precondition for the growth of outer metropolitan development during the decades following World War II.³⁰ Symbolically, the car has also played a central role in defining Australian national identity, both in terms of buttressing hegemonic forms of masculinity and (despite the reality of urban congestion) by promising freedom and unregulated mobility.³¹ However, both the functional and symbolic dimensions of car culture have relied upon the state's promotion of the car through the subsidisation of public road infrastructure and the relative neglect of alternative modes of transportation. Even the regulation of private motor vehicle transport in Australia from the first decade of the twentieth century adopted a pro-motoring standpoint in the interests of not suppressing an emergent technology.³² As Davison describes, private motor vehicles are inextricably

²⁷ Dodson and Sipe (2006a).

²⁸ Dodson and Sipe (2006b); Quiggin (2006); Hodge (2006).

²⁹ See: www.rag.org.au/tunnel; <http://sustainable-transport.blogspot.com>; www.stopthehalestreetbridge.com.

³⁰ Frost and Dingle (1995), pp 28–29 and 34–35; Mees (2000), pp 34–41.

³¹ Connell (1987), pp 109–10; Herrick (2006), p 85; Tranter (2003), p 72–74; Graves-Brown (1997), pp 68–70; Paterson (2000), pp 99–110. The car's symbolic power is dramatically described by Lefebvre in terms of its importance as one of the last vestiges of risk and danger in contemporary society: 'the motor-car with its retinue of wounded and dead, its trail of blood, is all that remains of adventure in everyday life, its paltry ration of excitement and hazard'. See Lefebvre (1984), p 101. David Inglis (2004) provides an excellent survey of ways in which the car was theorised by Lefebvre and other authors in postwar France.

³² Tranter (2005).

bound up with the project of modernity.³³ Therefore, the development of freeway plans in Australia in the 1950s and 1960s, and their subsequent construction, appear as logical developments in the progress of a modern, technological society.³⁴

Despite the obvious importance of the symbolic attachment to the car in Australia and its historically favoured position amongst planners and policy-makers, these factors alone do not sufficiently explain the Brisbane City Council's strident defence of TransApex. Indeed, its preparedness to engage in such a radical spatial assault on the city suggests a deeper logic at work — one which continues to exacerbate public anxieties over the imperative to reduce private commuting times, and has thwarted opposition to the TransApex model. One currently influential explanation of this logic is provided by Paul Virilio's writings on the role of speed in the contemporary world. He argues that the single most important factor shaping social life and the institutions that govern it is the inexorable tendency towards ever-increasing speed — or, as he describes it, 'dromology'. Generalised fears about the pace of everyday life, and consequential state interventions that moderate or enhance it are understood by Virilio as intrinsically 'dromological' elements of modernity.³⁵ The concept of dromology provides a mechanism for investigating how the 'relentless logic of speed has played a crucial part in the militarization of urban space, the organization of territory' and current transformations of social, political and cultural life.³⁶ Virilio has explored the impact of this logic on architecture, spatial planning, cinema and new forms of information technology.³⁷ He most clearly depicts the degree to which dromological imperatives exercise control over the regulation of mobility in his book *Speed and Politics*, where he describes how the state confuses the governance of 'social order with the control of traffic'.

The State's political power ... is only secondarily 'power organized by one class to oppress another'. More materially, *it is the polis, the police, in other words highway surveillance*, insofar as, since the dawn of the bourgeois revolution, the political discourse has been no more than a series of more or less conscious repetitions of the old communal poliorcetics, confusing social order with the control of traffic (of people, of goods), and revolution, revolt, with traffic jams, illegal parking, multiple crashes, collisions.³⁸

The emergence of modernity is depicted by Virilio in terms of mobilisation and increasing speed in order to show that these developments have not resulted in the reality of freedom of movement. On the contrary, they have produced an 'obligation to mobility' or a 'dictatorship of movement' which places speed and

³³ Davison (2004), p xii; Tranter (2003).

³⁴ Davison (2004), p 168.

³⁵ Virilio (1986).

³⁶ John Armitage (2000), p 6.

³⁷ Virilio (1986, 1989, 1994, 1995, 1997).

³⁸ Virilio (1986), p 14.

the means to attain it at the centre of modern social and political life.³⁹ Both personal desires for shorter travel times and state strategies for maximising the productivity of the working day coalesce in the spectral image of the clean, new road — an open space, free of obstructions. There is certainly much of value in Virilio's account of how speed shapes social relations and forms of institutional governance. He draws attention to the ways in which movement through physical space is now measured in terms of the pace of increasingly rapid forms of technology and communication. The inner city itself is now identified not as the centre of urban life, but as an obstacle to the homogeneous flow of daily traffic. As Virilio describes it:

The city is but a stopover, a point on the synoptic path of a trajectory, the ancient military glaxis, ridge road, frontier or riverbank, where the spectator's glance and the vehicle's speed of displacement were instrumentally linked ... (T)here is only *habitable circulation*.⁴⁰

Nevertheless, Virilio's *Speed and Politics* can provide at most a partial explanation of the political context surrounding the construction of the unfolding suite of TransApex projects. Leach argues that Virilio's stance towards speed, technology and the militarisation of the city remains essentially an aesthetic one, divorced from the concrete political implications of the processes he identifies.⁴¹ Other critics have suggested his work is limited by an exaggeration of the material impacts of speed on contemporary life and a demonisation of technology which substitutes a 'moralistic critique for social analysis'.⁴² A corrective to his largely pessimistic and one-sided focus on speed can be found in the social theory of Henri Lefebvre, which provides a number of fertile resources for thinking about the philosophical and legal dimensions of TransApex. Interestingly, both Virilio and Lefebvre share a long-standing critical engagement with aspects of Heidegger's work. The former's bleak vision of an encroaching technological domination of society owes a debt to Heidegger's writings on technology, while Lefebvre's contributions to the philosophy of space show the influence of Heidegger's later work on 'poetic dwelling'.⁴³ However, they arrive at very different conclusions about the inherently political nature of space. It is Lefebvre who reminds us that transport planning and the governance of traffic flows must be linked to broader questions about the production of urban space and the forms of order it imposes.

Space, Rhythm and the Politics of Mobility

A key element in Lefebvre's analysis of the production of space is his depiction of the dominant spatial formation of contemporary capitalism as 'abstract space'

³⁹ Virilio (1986), p 30; McQuire (2000), p 144.

⁴⁰ Virilio (1986), p 6.

⁴¹ Leach (2000), p 81.

⁴² Kellner (2000), p 120; Thrift (2005).

⁴³ Both writers have been described as 'left-Heideggerians'. See Kellner (2000), p 118; Elden (2004a), p 101.

— a space structured by tendencies towards fragmentation, homogenisation and hierarchy.⁴⁴ The fragmentary character of abstract space can be understood on a number of different levels. Private land ownership breaks the city up and segments it into discrete parcels, which can be bought and sold as commodities, while land use controls divide social space into zones that can be categorised and policed according to designated uses.⁴⁵ Public infrastructure, such as road and freeway developments that allow traffic to pass through existing residential areas, also contribute to the physical fragmentation and segmentation of urban space. Recognising the inherent violence in the deployment of technology in this way, Lefebvre describes how the 'motorway brutalizes the countryside and the land, slicing through space like a great knife'.⁴⁶ While at the local level abstract space appears to be fractured, it also tends towards homogeneity, through the subjection of space to the market criteria of pure exchange and through the state's attempts to impose coherence and unity to the various sub-systems that operate within the city.

This allows us to observe how infrastructure projects such as roads and freeways impose a form of invisible legality on urban space. Freeway developments in particular contribute to spatial homogenisation by extending similar road forms and elevated flyovers throughout the city and extending the capacity of the motor car to travel at uniform speeds, unimpeded by the interruptions of other traffic or pedestrians.

[P]eople (the 'inhabitants') move about in a space which tends towards a geometric isotopy, full of instructions and signals, where qualitative differences of places and moments no longer matter.⁴⁷

The public provision of transport infrastructure is deeply entwined with the dependence of everyday life in Australia's dispersed suburbanised cities on a range of collectively consumed resources and systems. Given the cultural and functional importance of the private car in Australian life, forms of modernist transport planning such as that pursued in TransApex are clearly linked to an increasing commodification of space. Writing presciently in 1968, Lefebvre described how the city has been strategically assaulted by 'the car — the current pilot-object in the world of commodities'.⁴⁸ This assault has only been able to succeed through the adherence of state decision-makers to an ideological representation of the city as 'a network of circulation and communication', thereby facilitating the permanent movement of vehicular traffic at almost any cost.⁴⁹

⁴⁴ Martins (1982), pp 177–78.

⁴⁵ Butler (2005), pp 20–22.

⁴⁶ Lefebvre (1991), p 165.

⁴⁷ Lefebvre (1996), p 128.

⁴⁸ Lefebvre (1996), p 167.

⁴⁹ Lefebvre (1996), p 98. The similarities of this position to that of Virilio should immediately be apparent. Lefebvre attributes this ideology to functionalist urbanists such as Le Corbusier, who reduce 'urban society to the achievement of a few

In addition to the processes of fragmentation and homogenisation, abstract space is also hierarchically ordered by legislators and planning bureaucracies into areas targeted for economic and social revitalisation and those 'destined ... for controlled, closely supervised decline'.⁵⁰ A classic example of the form of authoritarian spatial practice that Lefebvre identifies here is the strategic construction of the boulevards in nineteenth century Paris by Baron Haussmann as a means of militarising the historical centre and turning over working-class neighbourhoods to the 'victorious bourgeoisie'. This act 'carved up the existing space and quartered, shattered and rearranged it to suit its own requirements'.⁵¹ The dramatic elimination of the core of the suburb of Woolloongabba in the construction of the Riverside Expressway in the early 1970s provides a less extreme demonstration of the state's capacity to reorganise space according to its hierarchical priorities. In this case, a working-class area was sacrificed for the sake of the mobility of residents from other parts of the city, and a new spatial order was constructed south of the river. Both the currently approved river crossings in the TransApex plan will once again carve through this area of South Brisbane, partly to solve the congestion problems of commuters travelling from the leafy outer western suburbs. As a result, the reign of the private motor vehicle will further be reinforced and extended in scope.

These spatial and legal tendencies towards abstraction are accentuated by the state's utilisation of scientific techniques and forms of management and control that are keenly guided by what Lefebvre terms the 'logic of visualisation'.⁵² This logic was first and most expressively revealed by the revolutionary changes in the visual arts in the first decade of the twentieth century, which strove to disrupt the relationship between 'subject' and 'object' and liberate the signifier. Picasso's cubism is probably the best instance of this, as it 'heralded the space of modernity' by reducing the depth of the object and restoring its multiple aspects.⁵³ His depiction of an 'unreservedly visualised space' — simultaneously fragmented and homogeneous — was, Lefebvre observes, a 'dictatorship of the eye — and of the phallus; an aggressive virility ... (and) machismo'.⁵⁴ The radical nature of this aesthetic shift in the perception of space within the visual arts is hardly controversial. However, it also exercised a more widespread influence in a range of other disciplines from the early twentieth century onwards. For example, since the advent of aerial photography, spatial sciences such as architecture, geography, planning and engineering have

predictable and prescribed functions laid out on the ground'. Lefebvre (1996), p 98. See also Smith (2001), p 32 and Le Corbusier (1971), p 102.

⁵⁰ Lefebvre (1976), p 87.

⁵¹ Lefebvre (2003), p 154. See also Lefebvre (1991), p 312; Lefebvre (1996), p 76; Elden (2004b), p 150. For a description of the political strategy behind Haussmann's urbanism, see Benjamin (1968), pp 86–88.

⁵² Lefebvre (1991), p 98.

⁵³ Lefebvre (1991), p 302. However, at around the same time, artists such as Paul Klee and Vassily Kandinsky were developing a style that also emphasised the object-in-space. See Lefebvre (1991), pp 300–4.

⁵⁴ Lefebvre (1991), pp 301–2.

tended to rely upon the 'bird's-eye' view of the city, allowing decisions to be made from above without the need for investigations of their concrete social impact on the ground.⁵⁵ However, despite the widespread illusion that visibility is equivalent to knowledge, the logic of visualisation has a vastly reductive power, flattening out the volume and depth of social reality leaving only a surface. Urban planners, spatial designers and legislators are therefore handicapped by their treatment of space as a readable text that can comprehensively be mapped and reduced to the 'gaze of the topographer'.⁵⁶ The dominance of the logic of visualisation within these disciplines is a key element in the *abstraction* of space. By visually rendering space broken, pulverised and ripe for redevelopment and consumption, this logic performs a crucial role in the imposition of an invisible spatial legality on the city.⁵⁷ During the last four decades in Brisbane, this legal order has revolved around the normalisation of high-speed inner-city freeways as the dominant means of everyday mobility.

The logic of visualisation does not remain the province of experts within the spatial sciences, but also infiltrates popular consciousness as a justification for abstract space as a natural state:

Abstract space ... simultaneously embraces the hypertrophied analytic intellect; the state and bureaucratic *raison d'état*; 'pure' knowledge and the discourse of power. Implying a 'logic' which misrepresents it and masks its own contradictions, this space, which is that of bureaucracy, embodies a successful integration of spectacle and violence ...⁵⁸

For the commuter, orienting oneself around abstract space is dependent on the ability to comprehend plans, interpret codes and obey signals. The driver of a motor vehicle passing through the fragmented zones of the deconcentrated suburban city requires, above all else, 'the capacity to read the symbols of the highway code, and with a sole organ — the eye — placed in the service of his (sic) movement within the visual field'.⁵⁹ The freeway and the expressway exacerbate this effect, by reducing the space of the road to a homogeneous plane to be read according to well-understood norms and repetitious signals. Maintaining this homogeneity is inevitably linked to the elimination of blockages and delays to the circulation of traffic, and this returns us to the importance of time in the governance of mobility. However, rather than accepting Virilio's assertion of a uniform and totalising dromological tendency of modern life as the last word, it is necessary to recognise the ways in which

⁵⁵ Johnson (1997), p 31.

⁵⁶ Buchanan (1994), p 130. Lefebvre explores how the supposed 'readability of space' under the guise of the logic of visualisation actually conceals the condensation of power relations hidden in space and their impact on the living body: Lefebvre (1991), pp 142–47.

⁵⁷ Lefebvre (1991), p 313.

⁵⁸ Lefebvre (1991), p 308.

⁵⁹ Lefebvre (1991), p 313: 'Someone who only knows how to see ends up, moreover, seeing badly.'

the city is an assemblage of rhythms — some generated by relations of domination and others cycling to an alternative tempo.

This is the thrust of Lefebvre's late writings on *rhythmanalysis*, in which he attempts a theorisation of how the interconnections between space and time unfold in everyday life. For Lefebvre, time in contemporary urban societies is measured in two ways: 'fundamental, cyclical rhythms' and 'repetitions imposed by quantified time (ie the type of temporality dictated by clocks and watches)'.⁶⁰ The repetitions associated with linear time mirror the fractured and homogeneous nature of abstract space:

[Q]uantified time subjects itself to a very general law of this society: it becomes both uniform and monotonous while also breaking apart and becoming fragmented. Like space, it divides itself into lots and parcels: transport networks, themselves fragmented, various forms of work, entertainment and leisure.⁶¹

Abstract space generates an abstract social time, which is imposed on the users of space.⁶² The rhythms of the living body are subordinated to those repetitive gestures that contribute instrumentally to productive labour. An example is the manner in which transformations of the built environment, such as high-speed freeway developments, provide a platform for the repetitive stream of daily commuting traffic traversing the city. Sheller and Urry's description of the temporal effects of the system of automobility in general are directly relevant to the experience of the freeway:

Automobility ... coerces people into an intense flexibility. It forces people to juggle tiny fragments of time so as to deal with the temporal and spatial constraints that it itself generates ... [It] structur[es] and constrain[s] the 'users' of cars to live their lives in particular spatially stretched and time-compressed ways.

By actively supporting the role of the private car in the overall system of urban mobility, the freeway invisibly but effectively marginalises other transport options. Historically in Brisbane, this has had the effect of making it very difficult for most households to avoid daily motor vehicle usage, unless situated very close to poorly serviced railway or busway stations. TransApex further entrenches this privatised model of mobility by subsuming transport and land use planning decisions to the objective of reducing isolated pockets of peak-hour congestion. It will effectively legislate for the extension of a spatio-temporal order, which reproduces the dominance of linear and quantified social rhythms. Virilio correctly identifies the dromological pressures to which these rhythms fall prey, but the city is also the site of a plurality of other rhythms, not all of which are dominated by increasing levels of speed.⁶³ As Lefebvre states:

⁶⁰ Lefebvre (1999), p 6.

⁶¹ Lefebvre (2004), p 74.

⁶² Lefebvre (1991), p 408.

⁶³ Crang (2001), pp 190–91.

[E]veryday life remains shot through and traversed by great cosmic and vital rhythms: day and night, the months and the seasons, and still more precisely biological rhythms ... [T]his results in the perpetual interaction of these rhythms with repetitive processes linked to homogeneous time.⁶⁴

Occasionally, the repetitive gestures generated by abstract space find themselves in direct conflict with *lived* time and the spaces produced by the body's rhythms. Abstract, commodified space may provide the 'envelope' of time, but lived time resists its reductive power. '[R]eal social time is forever re-emerging complete with its own characteristics and determinants: repetitions, rhythms, cycles, activities.'⁶⁵ Accordingly, resistance to the laws of abstract space requires not just the reappropriation of physical space, but a reassertion of alternative rhythmic modes. This leads us to the prospect of a 'differential space-time', capable of supplanting the dominance of abstract space and its quantified, linear time.⁶⁶ Marginalised means of travel, such as walking, cycling and the various mixes of public transport, may well be subject to the demands of linear time if simply integrated into the daily routine of commuting. But they have the advantage of removing the mobile body from the obligation to keep to the freeway speed limit in order to remain merged with the general flow of traffic. As such, these activities can be the basis for moments of 'appropriated time', resisting forceful social urges towards speed, repetition and quantification.⁶⁷ Similarly, the act of aimlessly driving around town can approximate the leisurely stroll, while roadways may themselves be appropriated by those wishing to use them for purposes that evade the homogeneous intent of their original design.⁶⁸ Fostering these alternative rhythms of mobility and securing a space for the practices that generate them form an essential part of any strategy seeking to confront the fragmentary, homogeneous and hierarchical tendencies of abstract space and producing a space-time open to social difference.

Conclusion

I don't want to let down
My own hopes for this town
It's so hard to get around
Lots of cars but not much sound
In town⁶⁹

⁶⁴ Lefebvre (2004), p 73.

⁶⁵ Lefebvre (1991), p 339.

⁶⁶ Lefebvre (1991), pp 50, 52. However, it is important to note David Cunningham's identification of the dangers involved in creating a binary opposition between difference and abstraction: Cunningham (2005), p 23.

⁶⁷ Lefebvre (1999), p 8.

⁶⁸ Thrift (2004); Sinclair (2002); Merriman (2004).

⁶⁹ The Saints (1978) 'Brisbane: Security City'.

The TransApex plan is radical in its scope, but philosophically represents the return with a vengeance of a well-worn version of modernist transport planning. Despite the various criticisms of the plan's contribution to entrenching private motor vehicle usage and the financial model on which it is based, it appears that the decisive conservative victory in recent local authority elections signals 'full steam ahead' for the planning and construction of its currently approved components.⁷⁰ This article has employed Lefebvre's account of abstract space and its attendant social rhythms to critique the forms of thinking underpinning TransApex. It has been argued that this set of projects can be conceptualised in Lefebvorean terms as contributing to the reproduction of abstract space. In turn, this space is associated with an abstract and quantified social time that effectively dominates and marginalises other rhythms of the city. Despite the physical visibility of this set of infrastructure projects, they will also reinforce an invisible set of spatio-temporal laws, structuring the transport choices and behaviour of future generations of travellers. Virilio accurately pinpoints how the endlessly increasing levels of speed in contemporary life play an important part in naturalising this abstracted space-time. But it must also be remembered that the forms and structures of urban space are constantly open to contestation by those wishing to use space in ways which run counter to currently dominant uses. Accordingly, the spatio-temporal order prescribed by transport projects such as TransApex are inevitably subject to political challenge by alternative conceptualisations of the movement of people and things within contemporary cities.

Any challenge to this set of spatio-temporal laws that coerces travellers into the system of automobility will require the concretisation of new social norms relating to mobility. Such a legal, political and cultural shift will involve vastly increased levels of public transport and safer opportunities for cyclists and pedestrians to 'reclaim the streets' and generate different social rhythms to those imposed by the speeding 'steel and petroleum car'. In the short term, this will necessitate frequent, regular and coordinated feeder connections to busway and railway stations from neighbouring suburbs. Incredibly, Brisbane residents are still waiting for adequate services of this type almost four decades after they were recommended by the Wilbur Smith Public Transport Study.⁷¹ It will also be imperative that public transport authorities remove time restrictions on carrying bicycles on trains, provide bicycle racks on all buses and fund major end-of-trip facilities for cyclists and pedestrians in all major workplaces.

Taken in isolation, these proposals appear to be simply a moderate plea for plural forms of mobility. However challenging it may be, the hegemony of the system of automobility will also require profound social changes incorporating

⁷⁰ The Queensland State Labor Government has now signalled for the first time its support for the Northern Link Project as a substitute for its abandoned plans for a Western Bypass: 'Tunnel May Replace Brisbane's Scrapped Western Bypass', www.news.com.au/couriermail/story/0,23739,23474118-952,00.html, 3 April 2008.

⁷¹ Wilbur Smith and Associates (1970). For a discussion and critique of this study and its relationship with the 1965 *Brisbane Transportation Study*, see McKillop (1972), p 6.

reconfigurations of both the built environment and currently dominant forms of social time. A crucial step in this direction is to denaturalise freeway development as an inevitable consequence of progress in a modern, technological society. Linked to this is the need to render visible the hidden but coercive spatio-temporal order that modernist transport plans such as TransApex impose on the city. As the source of an alternative legality of urban movement, Lefebvre's social theory holds out the tantalising hope for the emergence of a differential space-time, undermining the dominance of abstract space and its quantified social time, and replacing the logic of visualisation with a more balanced relationship between the travelling body and its rhythms in space. This is obviously an immense political project in Brisbane's current transport planning context. It will demand much more than isolated local resistance against particular components of the TransApex plan. As Lefebvre's work makes clear, all successful strategies of political transformation require activists to produce new spaces and assert alternative social rhythms.⁷² Unless those engaged in struggles against the blinkered vision and negative consequences of modernist transport planning take such strategic questions seriously, the prospects for a different model of urban mobility will recede even further down the road.

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⁷² Lefebvre (1991), pp 416–17, 383; Brenner (1997), p 152.

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