An Alternative to Urban Sprawl

"The problem of urban sprawl is abundantly clear to everyone who daily needs to commute in capital cities whether by car or public transport - and the forecasts offer little relief. … While there can be no argument about the need for more efficient freight and public transport, we would appear to have lost sight of the obvious solution - regional centres. As we rightly give attention to the needs of our capitals in light of their spiralling growth, we ignore the fact that many of our regions stagnate or decline. It makes little sense.

"Surely the interests of Melbourne and the other capitals would be better served by focusing on measures that make regional Australia more viable and more attractive as destinations to live and work. Those of us living in the regions are all too familiar with their attractions. We choose to live here because we love the lifestyle, their liveability, their sense of community, room to move and clean air. Increasing the attraction of Australia's regions requires attention to the fundamentals. Access to quality health care, pathways to further education and an efficient transport system are key requirements to promoting rural living. … We clearly need governments that can get to understand what it would take to encourage their own rural living. … How come we just don't get it? Despite our vast land, we insist on becoming one of the world's most urbanised countries. There would be few Western countries that could dare 'boast' capitals with populations akin to Melbourne or Sydney. Maybe we too should consider a European solution to managing the future?

"We would do well to consider the model for decentralisation in Sweden, which requires that a range of cultural, educational and social provisions are mandatory for regional areas when urban centres reach a certain size. It's the sort of planning that ensures that rewarding and fulfilling lifestyles become possible in 'the sticks'. With Australia's population predicted to grow to 35 million by 2049, surely this is a wake-up call for the management of Australia's future, especially the future of our regions."
Ref: Vernon Knight, The Age, 18/11/09

"Has anyone looked at Geelong's sprawl in the past 20 years? And Bendigo and Ballarat already look like a mini Melbourne with their paddocks of display homes ready for three-car families. Decentralisation might work better in Sweden, but then so do most other things."
Ref: 'Barfiller', The Age comments, 18/11/09

And Also … (Flying Cars)

"If US company Terrafugia has its way the world's first road-registered, air-worthy, flying car could soon be on our highways and in our skies. The firm's new vehicle is called the Transition Roadable Aircraft. ... The prototype is still going through testing and approval processes, but it really does fly, oh and drive. As it is categorized as a light sport aircraft, the Transition only requires a sport pilot license in the US. At the heart of the concept are folding wings which tuck in neatly beside the cockpit for road use. They are deployed and folded from the convenience of the cockpit. The plane to car transition is stated to take less than 30 seconds. The vehicle, would allow you and a passenger to drive to the airport, hit the runway after deploying the wings, fly to your chosen airport and then drive to your destination. … For all this convenience though it seems there is a price to pay in the form of performance. In flight the Transition cruises at 100 kts (around 185km/h), so not a speedster in the air and at about 100km/h on the road, you're not exactly tearing up the bitumen either. It runs on high-octane unleaded auto gas and well, let's not think about the fuel economy. "But who cares? It's a flying car! For the safety conscious, there is a safety cage, crumple zone, side impact protection and for ultimate peace of mind, you can have a full vehicle parachute, not recommended for use on the freeway. After as little as 20 hours of flight training and just $195,000 (estimated) you too could become master of the skies, and owner of a very strange looking car. You will have to wait till at least 2011 though."
Ref: Sally Howes, The Age, 13/11/09

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Problems with Road Building

"The foremost economic benefit postulated and claimed for all road network investments is the value of travel time saved. … The results from this study suggest that the core of travel times savings benefits, which is an increase in average travel speeds, has not to date eventuated in Melbourne's urban road network during the years under review. Indeed, based on the evidence presented and analysed in this paper, one could be led to the conclusion that investments in Melbourne's urban road network have resulted in more time being used by Melbourne's motorists rather than less time. Hence major road infrastructure initiatives and the consequent economic investments have not yet delivered a net economic benefit to either Melbourne's motorists or the Victorian community. Equally concerning is the plausible conclusion from this analysis that over their remaining economic life such major urban road network investments are unlikely to result in major travel time savings."
Ref: John Odgers, *Have all the time savings on Melbourne's road network been achieved?*
www.abp.unimelb.edu.au/gamut/about/odgers-report.html

"In its last two budgets the Howard Government slashed road spending by almost 40 per cent, according to new figures compiled by the Bureau of Infrastructure, Transport and Regional Economics (BITRE). … By contrast, the Rudd Labor Government is rolling out the biggest ever Federal roads program, with construction currently underway on projects worth almost $9 billion. All up, our roads budget for the period between 2008/09 and 2013/14 totals $28 billion – more than double what the previous government spent over a similar period of time."
Ref: Anthony Albanese, Federal Minister for Infrastructure, Media Release, 25/11/09

And Also …

"This government is committed to sustainability at its core. We are committed to leading by example in our own operations. …. And we're determined to address the major sustainability challenges of our time."
Ref: Kevin Rudd, PM, Sustainability Reporting Awards Conference 7/6/08

"The Australian Government is working to achieve a sustainable future by taking decisive steps to tackle the challenges of climate change, energy security, and water security."
Ref: Kevin Rudd, PM, Sustainability Magazine, 13/1/09

Road Building Paradoxes

"The Pigou-Knight-Downs paradox is the observation that people will tend to balance car trips with rail trips until the two are at equilibrium in time and comfort. Building more roads attracts commuters away from rail, which reduces or diverts investment and increases the travel time, forming a vicious cycle. This means that building more roads and not investing in faster rail transport results in a general overall decline in traffic speed. This is nowhere more clear than here in California where, despite enthusiastic freeway building, a bike is a competitive mode. The solution is simple and necessary: invest real amounts in improving rail transport, in particular improving the grade-separated heavy rail network and linking the feeder tram network to stations."
Ref: Nathan Hurst, The Age, 5/9/09

"Downs-Thomson paradox, also referred to as the Pigou-Knight-Downs paradox, states that the equilibrium speed of car traffic on the road network is determined by the average door-to-door speed of equivalent journeys by (rail-based or otherwise segregated) public transport. It follows that increasing road capacity can actually make overall congestion on the road worse. This occurs when the shift from public transport causes a disinvestment in the mode such that the operator either reduces frequency of service or raises fares to cover costs. This shifts additional passengers into cars. Ultimately the system may be eliminated and congestion on the original (expanded) road is worse than before. The general conclusion, if the paradox applies, is that expanding a road system as a remedy to congestion is not only ineffective, but often counterproductive. This is also known as Lewis-Mogridge Position and was extensively documented by Martin Mogridge with the case-study of London on his book Travel in towns: jam yesterday, jam today and jam tomorrow? An article of 1968 from Dietrich Braess now at the Faculty of Mathematics in Ruhr University, already pointed out the existence this counter-intuitive occurrence on networks - the Braess' paradox states that adding extra capacity to a network, when the moving entities selfishly choose their route, can in some cases reduce overall performance."
Ref: Wikipedia
http://en.wikipedia.org/wiki/Downs-Thomson_paradox

Parks or Car Parks?

"It is paramount for the health and wellbeing of the population that we retain every inch of public open space in parks and gardens, maintaining them as places of refreshment and passive recreation. Not as car parks."
Ref: Julianne Bell, The Age, 5/9/09

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Warning on Transport Greenwash

"In the face of global warming and insecure oil supplies, everyone agrees that transport needs to become more environmentally sustainable. Governments, road lobbyists and greenies all agree on the ultimate goal, but not on the best way to get there. One option is a radical change in transport priorities. Funding and road space would be redistributed, with an active bias in favour of walking, cycling and public transport delivered by efficient, accountable public agencies. Zurich exemplifies this: at the last census in 2000, only 19% of those living and working in the Swiss city took private transport to work; only 2% of students went to school or university in cars.

"Change this radical is too much for the road lobby and many governments who say we can make car travel more attractive at the same time as we reduce its environmental impact. They have no models to cite, because nobody has been able to square the circle in this way. Instead, they focus on publicity stunts and 'behaviour change programs' that put the onus on individuals, rather than governments. Some unkind people call this 'greenwash'.

"Despite the good intentions of many participants, cycling advocacy in Melbourne may be falling into this trap. The road lobby, the vested interests behind our dysfunctional public transport, and the multitude of players who make life miserable for pedestrians can all rest easy: they don't need to change. More bike lanes and promotional campaigns will fix the problem. The reality, as measured by the Australian Bureau of Statistics, is less impressive. The number of Melburnians cycling to work has remained at about 1% since 1976, although the share of those employed in the CBD who cycle has increased to 2% (not the 9% we often hear); but the share of suburban workers who cycle has fallen below 1%.

"Cycling is now largely confined to male professionals who live in the inner suburbs and work in the city centre. If, like me, you are one of these people, you could be forgiven for thinking cycling is booming, and transport problems are fixing themselves. Unfortunately, it's not the case even for work trips, while the data for school travel shows a big fall in cycling (and walking). Of course the real question should not be 'is cycling growing?', but 'is sustainable travel displacing car trips?' If cycling grows at the expense of public transport there may be little benefit; if it grows at the expense of walking, there is no gain at all.

"This seems to be what is happening in Australia. The cities with the highest rates of cycling to work (Adelaide, Melbourne and Canberra) have the highest rates of car driving, and generally the lowest walking rates. The cities with the least car driving (Sydney, Brisbane and Hobart), have the lowest cycling rates and (except for Brisbane) the highest rates of walking.

"Fortunately, things are not this bleak everywhere. Canadian cities have higher cycling rates than us, despite the freezing weather, but also more walking, more public transport use and less car driving. The best overall performer is Ottawa, where 'sustainable' modes account for 31% of work trips, compared with 19% in Melbourne. Ottawa's sustainable transport success began in the 1970s, when the city cancelled most of its freeways and nationalised public transport. The cities making progress towards sustainable transport don't rely on promotional campaigns directed at individual modes of transport. They pursue co-ordinated policies combining first-rate alternatives to car travel with moratoriums on new freeways. In some of these cities, cycling is a significant transport mode; in others, such as Ottawa and Zurich, it is less important than walking and public transport. But none of these places uses cycling as greenwash to distract attention from transport policies that favour the car." **Ref: Paul Mees, The Age, 15/10/09**

Paul Mees is a senior lecturer in transport planning at RMIT. His new book Transport for Suburbia: Beyond the Automobile Age will be released this December.

Comparing Canberra and Ottawa

"I have … lived in Ottawa, and the differences between transport in Ottawa and Canberra are stark. In Ottawa, working people actually use and rely on public transport because it goes where they want it to go. You will also see people walking on the streets at all hours. In Canberra, you can see the sneer on people's faces if you tell them you take the bus to work. This is because the buses in Canberra have built up a reputation for being infrequent, unreliable, slow and not travelling where or when people need them. Also, try walking around Canberra. Sure, it is a spread out city but even walking short distances you will find cracked or missing footpaths, traffic lights favouring cars, roundabouts that are impossible to walk across, and winding streets that discourage pedestrians. I live in an inner suburb of Canberra, yet the streets look like ghost towns, with not a walking soul in sight."
Ref: 'Canadia', Comments, The Age, 15/10/09

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Senate Report Extracts (Part 5)

3.53 *"There has been much comment in recent years about the 'obesity epidemic'. According to Doctors for the Environment Australia: 'Australia faces an epidemic of obesity, with almost 60% of Australian adults and 25% of children being obese or overweight, with type 2 diabetes and other adverse health effects from physical inactivity and unhealthy diets prevailing… Currently diabetes is estimated to cost $6 billion annually. This is expected to double by 2020'."*

3.54 *"Inactive lifestyles associated with excessive car use are a significant part of the problem: 'People who live in sprawling suburbs are more likely to drive their cars and have higher body mass indexes. Research has indicated that each additional hour of daily driving leads to a 6% increase in the likelihood of obesity'."*

3.55 *"Use of public transport and active transport can help ensure that people have minimum activity levels: 'Daily activities such as walking, cycling to the shops or to public transport, can provide the level of physical activity recommended in the National Physical Activity Guidelines. In studies of cities throughout the world a positive relationship has been found between availability of public transport and lower levels of obesity. This is simply due to factors such as commuters needing to walk to and from the bus, tram and train stops. As little as 30 minutes exercise daily helps to promote weight loss and improve physical fitness.….Even moderate exercise via endorphin release in the brain as well as the positive benefits of feeling fitter promotes psychological wellbeing. Use of public transport of itself promotes exercise in that people need to get to transport nodes, either by walking or bicycling'."*

Sprawl transport

3.57 *"In the committee's view the connection between car-dependent lifestyles, inactivity and the incidence of overweight is a serious matter which needs to be taken up more vigorously in both public health policies and urban planning policies."*

3.58 *"Building urban fringe developments in a way that makes it inevitable that more than 90% of the residents' trips will be by car should be regarded as no more acceptable than building on contaminated land."*

3.59 *"Many submissions noted that public transport is important to reduce the transport disadvantage and social isolation."*

3.60 *" 'Transport disadvantage' has two aspects: inadequate public transport for people who do not have licences or cars (or not enough cars for the needs of all household members); and the possibly excessive burden of car costs for those who are forced to have cars (or more cars than they might want) because of poor public transport."*

3.63 *"For those who do have cars the cost of the car (or the second car) may be an excessive burden of necessity, especially for people of lower socio-economic status in the outer suburbs: 'An important and generally unique feature of Australian cities is the concentration of lower income and financially marginalized residents in fringe urban areas. There are strong relationships between where disadvantaged Australians live and the lack of public transport. There is also evidence that this has encouraged many low income families to be become car dependent. As a result a high share of low income households on the fringe of our cities have high car ownership despite high costs of running cars. The result is 'transport poverty'. Providing even a minimum public transport level of service can provide a significant release for these pressures'."*

3.65 *"Outer suburban people and rural and regional people with high car use will be particularly vulnerable to rising oil prices."*

3.67 *"Rural and regional people without cars suffer particular transport disadvantage. Many submissions described the difficulties of life for people without cars or driver's licences - for example, difficulties that the elderly have in getting to doctor's appointments, or that youth have in gaining the independence they need. This particularly applies to transport from the smaller towns to the regional centres. Providing even a little public transport can greatly increase these people's opportunities."*

Ref: Investment of Commonwealth and State Funds in Public Passenger Transport - Senate Transport Reference Committee, August 2009
http://www.aph.gov.au/Senate/committee/rrat_ctte/public_transport/report/report.pdf {Cont. in #135}

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American Transport Planners

"American transportation planners use many models to forecast future traffic levels. They are all based on data about current and future traffic levels in the study area. Those future estimates are, of course, about the rate and composition of growth in your region as well as the shape (e.g. sprawl with disconnected streets or compact mixed use) and location of that growth. … Without direction or a reason to do otherwise, transportation planners will assume that growth and land use patterns will continue to occur without regard to the type and level of transportation investment. They will also likely assume that future growth will occur in the business-as-usual pattern of sprawling land uses, which separates businesses from homes and services, and configures new streets to be circuitous and disconnected so that walking and biking become nearly impossible. …

"With no supporting grid of streets to relieve the main roads, the state highway, or county /municipal arterial, will be forced to carry almost all of the new traffic generated by the growth. Many state highways are accommodating not only vehicles travelling through your town, but local trips made by you and your neighbours - trips that could be accommodated on local roads if they were properly connected. Not surprisingly, the model used by transportation planners will generate very high traffic demand figures - particularly on major roadways – and set the stage for large-scale road expansion projects. What's more, most traffic models also include background traffic growth, which assumes that traffic continues to steadily grow even without any population or employment growth in the area." **Ref: Gary Toth, A Citizen's Guide to Better Streets, Project for Public Spaces 2008**
www.pps.org/pdf/bookstore/How_to_Engage_Your_Transportation_Agency_AARP.pdf

Cause of Death in the US

"In 2006, [in the US] motor vehicle traffic crashes were the leading cause of death for every age 3 through 34. Because of the young lives consumed, motor vehicle traffic crashes ranked third overall in terms of the years of life lost, i.e., the number of remaining years that the person is expected to have lived had they not died, behind only cancer and heart diseases. … The age groups reflect categories of interest to the National Highway Traffic Safety Administration in terms of child-restraint programs (toddlers, infants, and young children), new drivers (youth and young adults), other adults, and older people." **Ref: NHTSA Research Note, 2009**
See: http://www-nrd.nhtsa.dot.gov/Pubs/811226.pdf

Intersection Repair

"Intersection repair refers to the painting of a mural in a public square or intersection where people can gather and drivers can slow to admire the neighbourhood and the work that community did together. This improvement makes the intersection a meeting point for people. It also encourages other community improvements and involvements, as one intersection repair project in Portland, Oregon encouraged a local artist to put up little installations throughout the community. Like David Engwicht's concept of the mental speed bump or Hans Monderman's shared space, intersection repair creates a better balance between pedestrians and vehicles, as it encourages vehicles slow to look at the artwork and be aware of the community in the streets, gathered around it. Intersection repair is a traffic calming measure that doesn't physically force cars to slow, but still gets them to slow; it helps create more liveable streets."

Ref: StreetWiki, 2/6/08
www.livablestreets.com/streetswiki/intersection-repair

Interview with Oz Kayak (Part 4)

Oz Kayak started as an engineering cadet with the Victorian Roads Authority, later worked with Victorian Railways and today is passionate about active forms of transport, community health and urban design. Here continues our discussion:

Oz Kayak: The strategic decision, for example, not run trains to Healesville or Warburton was solved by bushfires, which burnt too many bridges. The Road Authority never put up a timber bridge after the Second World War. Everything that they did was there to last. I was in charge of some of this decision making process and I never permitted a timber structure to go up anywhere, except for local government, and I ended up lecturing on the design of timber bridges – the Timber Council of Australia loved me – but I never permitted a timber solution though we did maintenance. That's where

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you had people like me, and I suspect others, you know we had suffered the war, and the last thing that you wanted was a timber structure. I used to show slides of burnt-out bridges with a fire truck on the embankment and people suffering on the other side. We still have timber bridges on our crucial railway links. You didn't have the Railways putting in non-combustible track – they are probably still putting down timber sleepers. They burn, especially when we had steam trains but they even burn from diesels.

Stephen Ingrouille: What other political agendas where there?

OK: With the tram extension to Bundoora [to the north-east of Melbourne] what we were asked to do, we could never have done before. Now we could shift some of the barriers on the bridges, etc, to allow room for the tram and meet his political agenda – it was his electorate.

SI: So you were accommodating the tram?

OK: We had responsibility for road safety. The reason that we didn't have a tram out there was not only because nobody would use it, but it would compromise road safety. When we tried to block off streets in the mid-sixties in Fitzroy and Collingwood the truck drivers – the TWU – objected but now of course there are lots of streets that are closed, they call it 'local area management'.

SI: But why was the Road Authority trying to block off these streets, was someone complaining about the noise?

OK: Yes. It was because one part of VicRoads has to respond to political pressure. If the local member is in trouble he [or she] can ask questions in Parliament.

SI: There have definitely been some unintended consequences of too much traffic, congestion and pollution for example, and perhaps in the 1950s we thought that we could build our way out of the problem but I want to come back to the point that by the 1950s we were starting to become aware that there were problems – New York comes to mind …

OK: … Jane Jacobs for example …

SI: Yes, Jane Jacobs …

OK: Amongst my friends, there were ones who studied town planning after they finished civil engineering and her book was almost compulsory reading …

SI: … so you knew in the early 60s that there were problems yet there was still a culture to build the freeways.

OK: Well you wanted to be promoted. That's the answer.

SI: So this culture of freeway building was coming from much higher up?

OK: Yes.

SI: Weren't they getting this information?

OK: Yes, but the arithmetic was simple. 90% of the people were travelling by private car, why wouldn't you help them, especially when you believed you could? I can still remember Colin Jordon at a breakfast – perhaps he was Chairman then, or at least on they way up – saying: 'We've always been supply focused. Now we are going to be demand focused'. So if we have the space, put a road in.

SI: But the consequence of building more roads is that you generate more traffic. Were they not aware of that?

OK: Yes, but it wasn't agreed with. I would tell you that half of the profession still doesn't agree with it.

SI: Did they think that they could just keep building more roads?

OK: They would recommend that the shoulder of use should be extended if you have a peak and of course if you put in an extra lane, then that's another 1000 cars you can put through. If you have four lanes instead of three then that's a lot more cars.

SI: But the urban designers amongst you would have known that adding an extra lane or increasing the shoulder of use would divide communities. Didn't they care?

OK: Most of my colleagues would have cared; whether they thought it was important is another issue. I mean Sven Erikson who was in charge of Planning in the mid-1980 would say: 'Oh well, we'll solve that problem'. Because I had a bridge focus, I used to say 'grade separate' all the time, 'don't put in traffic lights'. That was my 'Rolls Royce' solution: concrete and grade separation. There were a lot of smart solutions in Europe, not many in America, so I used to say to Sven – he was senior to me, said the right things at the right time, and got promoted – and he would say: 'Well Oz, do you just want to move the congestion point upstream?'

{Continued in #135}

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