

LEARNING FROM HISTORY

Institute of Transportation Engineers

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Everyone knows George Santayana's famous aphorism: 'Those who do not remember history are condemned to repeat it.' But, of course, history never really repeats itself, if only because the circumstances we face today are never quite like the ones we faced yesterday. As a historian, I have a vested interest in the proposition that we can learn lessons from the past, but honesty compels me to admit, right at the beginning, that the lessons of history are more cautionary than prescriptive. History can seldom show which path we should follow, but it can improve our thinking about how to choose it.

From childhood, we are told that we should learn from our mistakes. By avoiding the pitfalls of the past we hope to make better decisions in future. I imagine that the Australian practitioners of one modest form of engineering – ball tampering– are pondering their mistakes with some intensity right now, although as others have pointed out, they have only recently pledged to uphold a higher standard. In transport planning as in cricket, learning the lessons of the past is one thing, applying them is quite another.

In one of his best known books, *Great Planning Disasters* the famous British planner Sir Peter Hall, (SLIDE) examines a selection of planning mistakes, ranging from London's Motorways and San Francisco's BART system to the Anglo-French Concorde and Sydney's Opera House, and draws lessons for today's planners. (SLIDE) He identifies three main sources of uncertainty that affect planning decisions: uncertainty about changes in the environment; uncertainty about decisions in related areas; and uncertainty about value judgements. Looking back on the past half-century, old transport engineers

could probably cite numerous examples of all three kinds of planning uncertainty. Consider, for example, changes in our assumptions about future population and economic growth: what an interesting study could be made of the history of official estimates of Melbourne's future population! Or changes in our understanding of how increases in road capacity relieve, or fail to relieve, congestion. And finally, and perhaps most crucially, changes in people's values and attitudes towards urban and suburban living and how they influence their transport behaviour. 'The good future life of the early 1960s consisted in ceaseless mobility in search of an ever-widening range of choice in jobs, education, entertainment and social life', Peter Hall observes. 'The good life of the early 1970s was seen in almost the reverse kind of life: in a small, place-bounded, face-to-face community'.

History, I contend, is a valuable corrective to some narrowly technical approaches to transport planning. In telling us how things came to be, it illuminates the taken-for-granted assumptions behind our way of life. By reviewing the chains of historical causation, it gives us a better sense of the complex, and often unforeseen, interactions between changes in employment, family structures, residential patterns and transport. It gives insights into the effects of policies and decisions that seemed sound at the time but turned out to be flawed. It sensitises us to the importance of different time-scales in the process of planning. And it tells us something of what the present owes to the past and, in turn, what it might owe to the future.

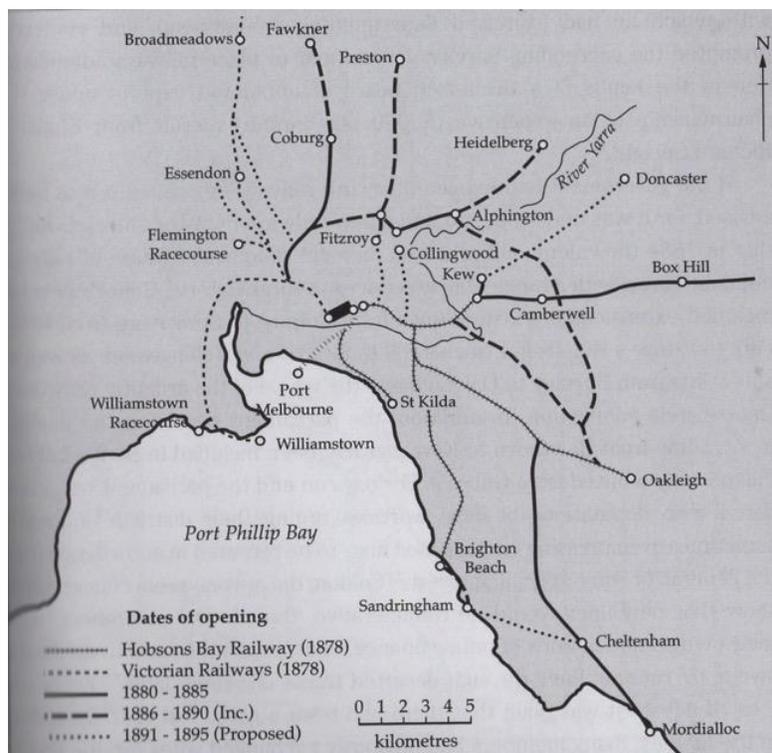
Looking back over the past century or so, one can identify many critical decision points in Melbourne's transport history, any one of which, if it had been resolved differently, may have set the city on a different path. I hesitate to describe these planning decisions as disasters, because—as we'll see—yesterday's apparent disasters sometimes turn out to be today's successes, and vice versa. One of the features of that history is a pattern of what economists call 'path dependence'—the tendency for a pattern of decision-making to become 'locked in' and nearly irreversible. The political scientist Margaret Levi explains it this way:

Path dependence has to mean, if it is to mean anything, that once a country or region has started down a track, the costs of reversal are very high. There will be other choice points, but the entrenchments of certain institutional arrangements obstruct an easy reversal of the initial choice. Perhaps a better metaphor [she continues] is a tree, rather than a path. From the same trunk, there are many different branches and smaller branches. Although it is possible to turn around or clamber from one to the other—and essential if a chosen branch dies—the branch on which a climber begins is the one she tends to follow (Levi as quoted in Pierson, 2000, 252) .

Adapting Levi's metaphor to the history of Melbourne, we might trace the historical path that has led the city to its dominant pattern of low-density suburban, automobile-dependent development. What were the critical decision points that led it to this destination? How easy would it be to turn back and retrace our steps along a different path, or attempt to move from one path or branch to another?

One of the earliest of these critical decision-points was the 1880s landboom, when Victoria's chief Commissioner of Railways, Richard Speight, an Englishman accustomed to the high standards and dense networks of the British railway companies, cheered on by log-rolling politicians, borrowed lavishly to construct much of our present suburban railway network. (SLIDE) Under the so-called the Octopus Act of 1883, the tentacles of rail extended to the farthest corners of the colony and beyond the most distant suburbs. (SLIDE) In a era long before the days of cost-benefit analysis, both politicians and railway officials simply built the new lines in the confidence that by advancing ahead of population they would encourage the suburban development that would eventually provide the patrons to pay for it. Speight boasted that any line within nine miles of the city would pay. (SLIDE) Some lines, like the notorious Outer and Inner Circle lines, (SLIDE) never generated significant revenue, and according to the economic historian Noel Butlin over-investment in the colonial railway system was one of the factors leading to the economic

collapse of the early 1890s. The alleged mismanagement of the railways, including the over-investment in the suburban system, became a cause célèbre in 1894 when Commissioner Speight sued David Syme, proprietor of the *Age* newspaper, in a famous libel action. (SLIDE) Speight was unrepentant. Melbourne's, he argued, was the finest suburban railway system in the world. And, indeed, measured by per capita public transport patronage, he had a point. (SLIDE) Historians have generally taken a dim view of Speight's apparently reckless policy. The railways had to carry the debts incurred well into the twentieth century. Yet, by building ahead of population, the railways had arguably endowed the city, at lowest cost, with a system that has continued to generate benefits to the present day. Building transport ahead of population looks a wise policy to a generation now facing the horrendous costs of catching up. (SLIDES)



In reaction against the excesses of the 1880s, public transport policy in the early twentieth century years was more cautious. An underground railway loop to serve the central city was first proposed in the early 1920s, included in the 1929 Metropolitan Planning Commission report (SLIDE) but not built until the 1980s. Advocates of the scheme argued that it was required to boost flagging patronage on the rail system. 'It

must be designed and routed so as to induce many more people than are at present doing so to use the suburban rail system' a 1958 committee declared. 'If it does not do this it is a waste of time and resources.' (SLIDE) It was by far the most expensive new addition to Melbourne's public transport system included in the 1969 Melbourne Transportation Study: by the time it was completed in 1981 it had cost at least ten times the initial £35 million estimate. A critical cost-benefit study by the Monash economist Stewart Joy was suppressed by the authorities. The expected boost to suburban rail patronage did not eventuate, at least immediately: it rose slightly through 1980s and 1990s (SLIDE) and accelerated only in the past decade (SLIDE).



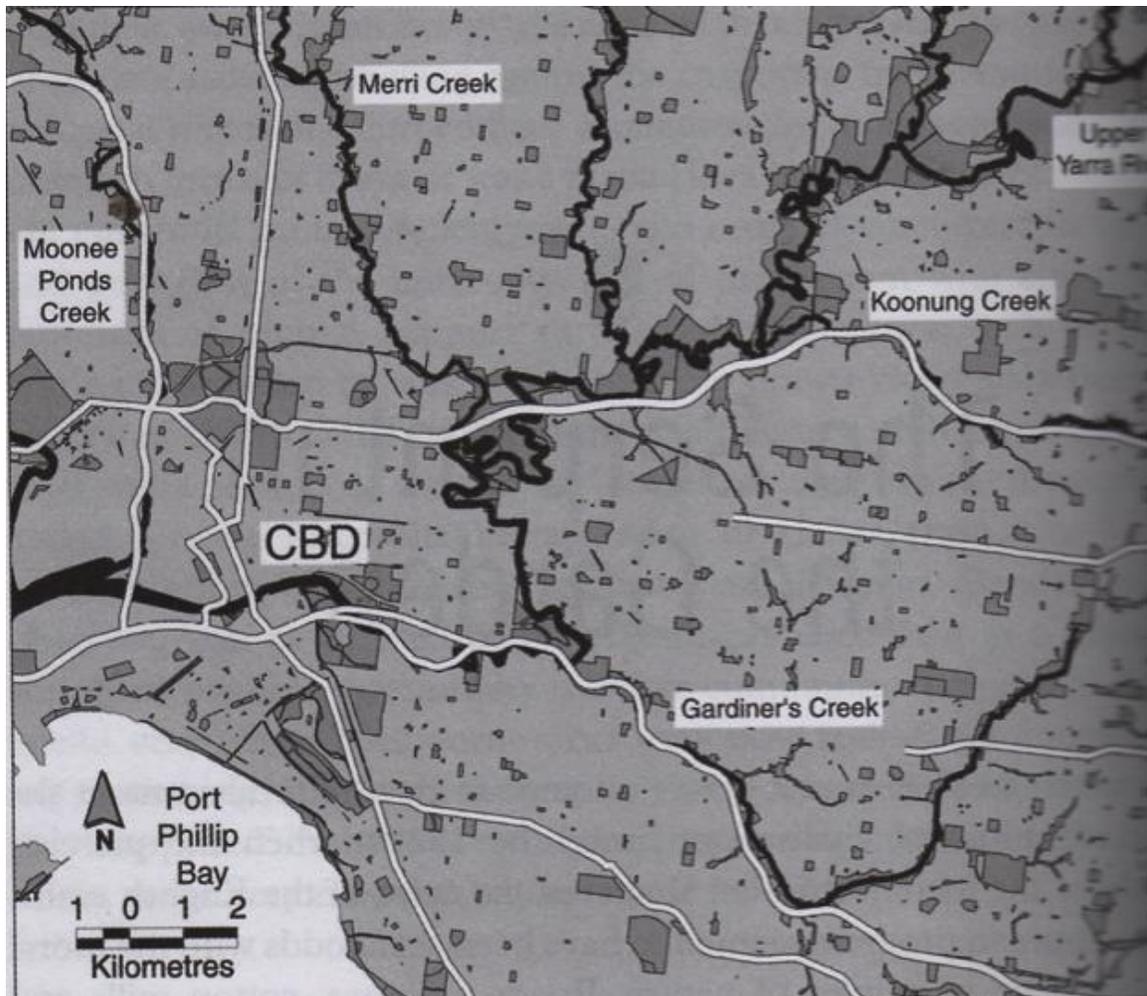
Was the Loop an expensive mistake or a timely long-term investment? Only ten years ago the late Paul Mees was arguing that the problem of congestion it was designed to solve was exaggerated and that a second Loop (the present Melbourne Metro) was unnecessary. He appealed to the past to confound current policy and performance, by showing, for example, that higher service frequencies had been achieved under the pre-Loop unprivatised system than under the current one. While ingenious and persuasive, his argument rests on the dubious assumption that the technological, economic and social conditions of the 40s, when the old VR achieved those apparently superior levels of service frequency, were sufficiently like today's to be able to draw reliable conclusions about the current and future functioning of the system.

Around the time the Lopp was first proposed, in the early 1920s, the Melbourne Metropolitan Tramways Board also unveiled a General Scheme that would have increased the size of the network by about 50 percent, but like other grand schemes of that era, it was deferred then cut short by the Great Depression. During the early 1920s the government-owned train and tram networks were locked in vigorous competition with private bus-owners. The Victorian Minister for Railways at the time, a promising young politician named Robert Menzies, fearful of the threat to the government's transport monopoly, insisted that licenses to run private bus services could only be given to companies that operated feeder-services to the state-owned rail system, a limitation on competition that has persisted to the present-day. For almost a century the most flexible form of urban public transport, the motorbus, has been locked into a path determined, not by profitability, efficiency or public interest, but by political expedience and the interests of the the private bus companies which, as we have seen just this week, fight vigorously to hold onto their franchise, even sometimes in the face of both planning and economic logic.

The most fateful of the paths taken by Melbourne in the past half-century or so has been the city's surrender to the automobile. As late as 1951 more Melburnians were walking or riding bikes to work than were driving or riding in cars and vastly more than either of these groups were using trains, trams and buses. (SLIDE) In less than thirty years the

proportion of car commuters rose from under 20 percent to almost 80 percent. So disastrous does this mass conversion to the car now seem to some present-day environmentalists that they frequently assume that only a massive conspiracy on the part of the motor manufacturers and oil companies could explain it. In my book *Car Wars*, I argue that Melbourne's surrender to the car was predisposed by many factors, most perfectly rational in the context of the time. These included the run-down and inflexible public transport inherited from earlier times, as well as the inherent attractions of automobility to a city already set on a path towards low-density suburbanisation. The triple-fronted brick veneer and the Holden car were components of a single package that Donald Horne captured in his two most famous phrases; 'the lucky country' and 'the first suburban nation'. (SLIDE)

Was there ever a moment when Melbourne could be said to have reached a fork in the road and embraced the car? Transport policy, for the most part has been gradual and incremental, with twentieth century highways often following a similar path to nineteenth century railways – a quite literal form of path dependence. The main rail and road networks seem to have fallen quite naturally into the radial pattern determined by a physical geography (the Yarra and its tributaries) (SLIDE) technology (the optimal curves and gradients for railways and freeways), economics (cheap government land) and political prudence (the recognition that invading human neighbourhoods was riskier than despoiling creek and river valleys). (SLIDE) Attempts to override this pattern, such as the north-south components of the 1969 Melbourne Transportation Plan have usually fallen foul of resident opposition.

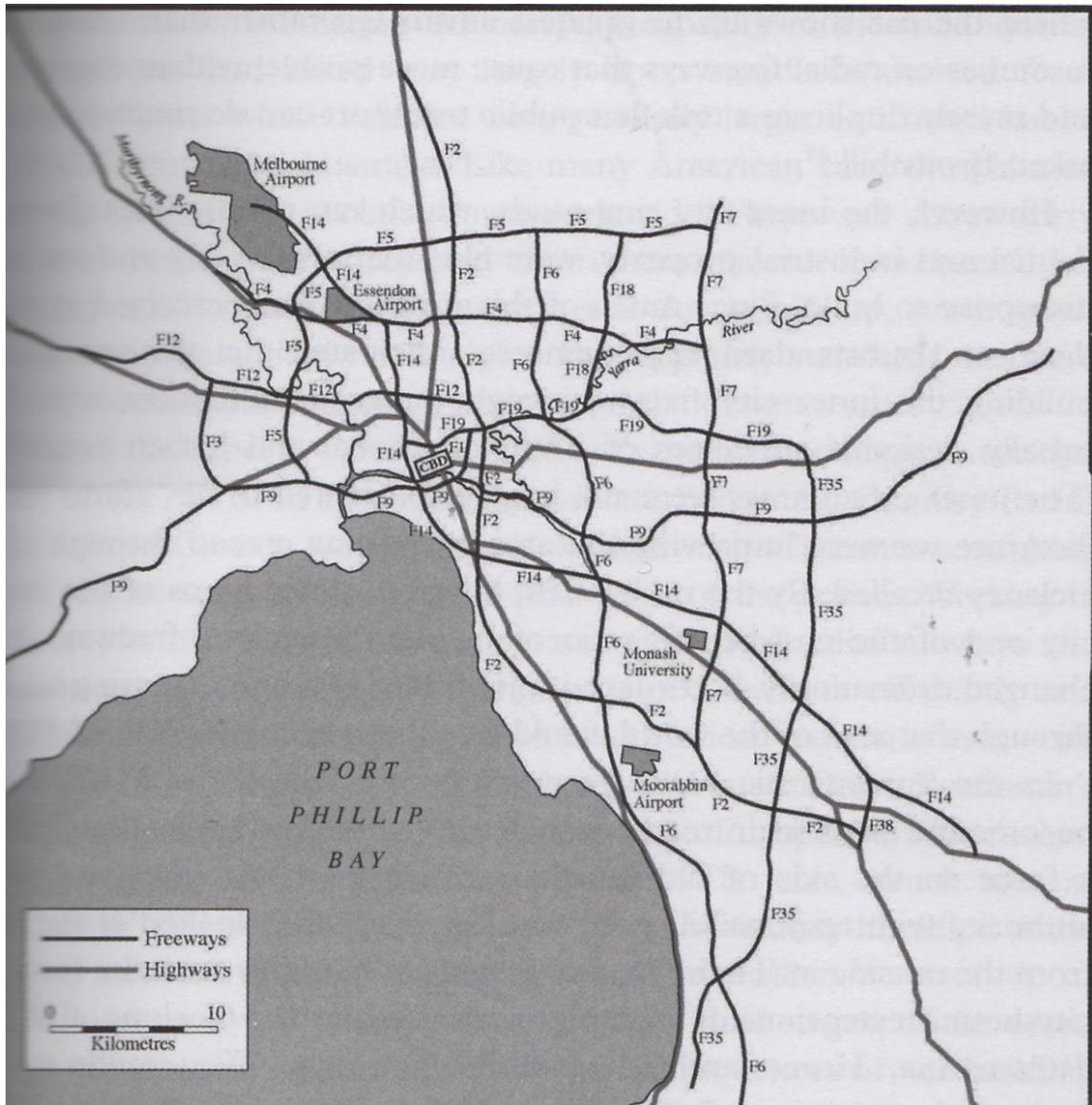


In February 1964 when the Royal Automobile Club of Victoria hosted a conference on the theme 'Living with the Motor Car.' (SLIDE) Most of Melbourne's movers and shakers, including state and city officials were there. They were addressed by two visiting experts, the American highway expert Burton Marsh, a breezy advocate of the American model of freeways and drive-ins (SLIDE) , and the British engineer and author of a famous study of *Traffic in Towns*, Professor Colin Buchanan (SLIDE) , who argued that it was necessary to curb and tame the car if civilised urban life was to survive. Burton Marsh arrived early and spent a couple of weeks touring the country and meeting local officials. He was a confident fluent presenter who illustrated his talk with lots of slides and movies. Colin Buchanan arrived only hours before his talk, obviously exhausted from the long pre-jet aeroplane journey and so disoriented that he jokingly admitted his surprise to find that the locals spoke English. Before he knew what he had said, or indeed

before he had really had time to look around, the diffident Englishman had surrendered to the breezy charm of his American co-presenter, and conceded that Australia, as a New World society, was bound to follow the same path as the United States.

Theorists of path dependence say that large consequences can sometimes follow from chance occurrences. Suppose Colin Buchanan had got on an earlier plane and looked a bit further before he opened his mouth, or Burton Marsh had arrived late and his slide projector had broken down, would Melbourne's leaders have plotted a different path into their future? Probably not; for there were many currents already running strongly in the direction advocated by Burton Marsh; but in the writings of Colin Buchanan there were the outlines of an alternative, counter-factual, path of urban development that might have preserved more of the human scale and historic charm of the nineteenth century city and forestalled some of the cruder attempts to remake it in an American mould.

Within five years of this encounter, Melbourne had committed itself firmly to the Burton Marsh recipe of freeway development. The 1969 Melbourne Transportation Study, with its plan for over 500 kilometres of freeways, was probably the most influential transport plan in the city's history. (SLIDE). I don't have time this evening to analyse all its consequences. In *Car Wars*, I describe it as a Faustian bargain: it led us down a path, which seemed benign at the time, whose less fortunate consequences its creators did not, perhaps could not, fully anticipate.



Recognising the path-dependencies that have brought Melbourne to its current vulnerable position is a useful antidote to the utopian tendencies of some urban and environmental planners. It reminds us that we can't reinvent the city afresh, but have to plot a path into the future that recognises the costs of moving back or further forward along the path we have been following, or of jumping from one path to another. One of the most influential analyses of the relationship between urban form and automobile dependence is the famous graph produced by Peter Newman and his colleague Jeff Kenworthy depicting the allegedly linear relationship between urban sprawl and automobile dependence (SLIDE). At the virtuous end of the graph are high-density, low auto-dependent cities like Hong

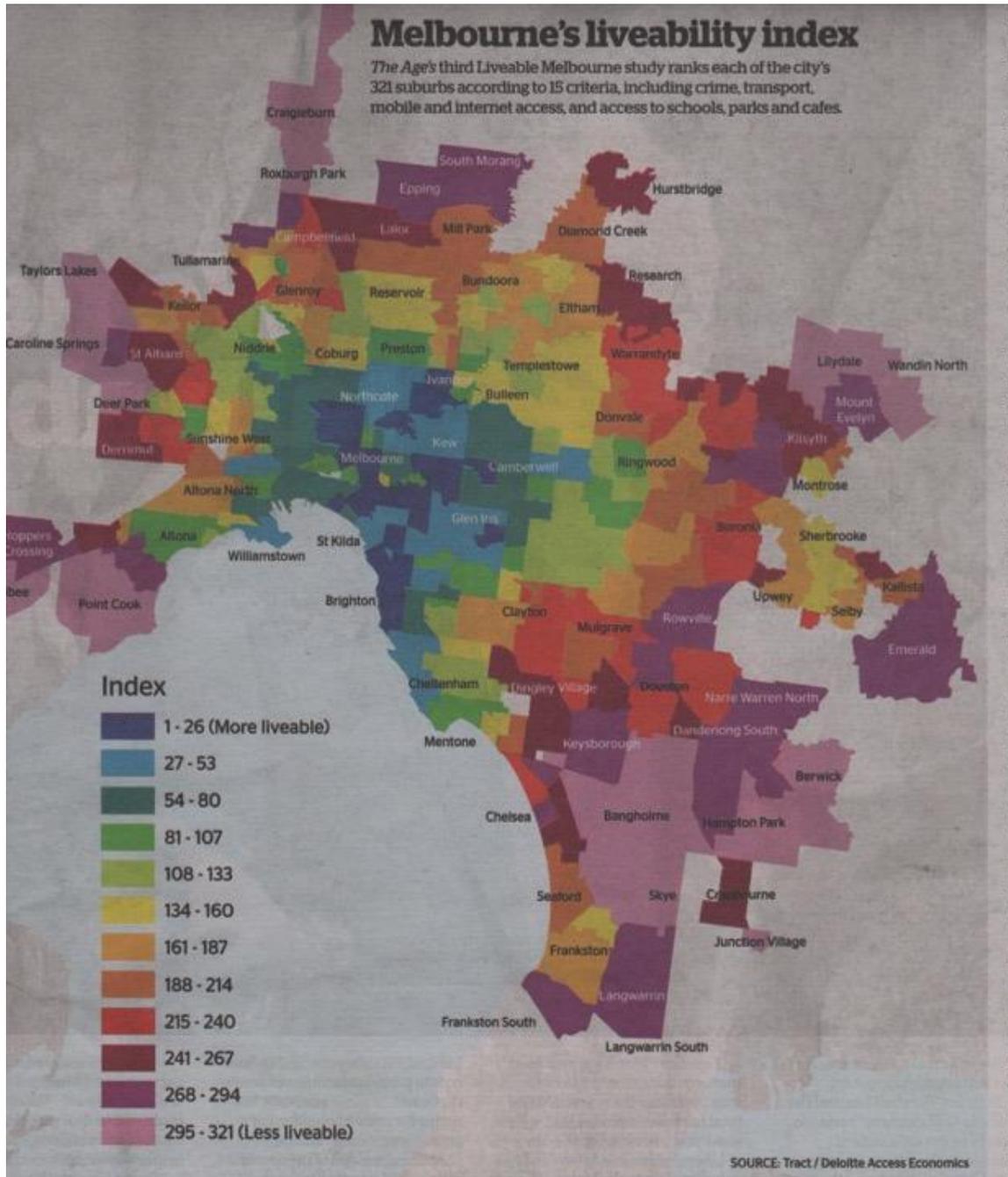
Kong or Paris while at the vicious end are low-density automobile dependent cities like Dallas and Houston. Melbourne is in the middle but too close to Houston for comfort. If only we were as densely built as these other cities, then, Newman implies, we could support transport systems like theirs too. This is the logic that underlies Melbourne 2030 and the push for higher residential densities around the fixed rail transport system.

However it takes little account of the historical paths that led us to these different points on the graph or of the costs and benefits of attempting to move from that path to another. Faced with the massive costs of exchanging one transport paradigm for another, it might be sensible to modify the pattern we have got by well-crafted adaptation, in the style of Colin Buchanan, rather than to radically overturn it. (one recent attempt to plot a course through these difficulties the ACOLA Report, *Delivering Sustainable Urban Mobility*)

Right now Melbourne is going through one of the most profound transformations in its history. Rapid population growth, high levels of skilled migration, principally from Asia, the decline of manufacturing and the recentring of the metropolis around the knowledge economy, not to mention the twin threats of resource depletion and climate change pose challenges unforeseen in the 1950s and 60s. The social map of the new Melbourne is almost an inversion of the old, with the most desirable places to live now concentrated near the centre instead of on the suburban fringe. (SLIDE) . History by itself cannot tell us what we should do about these challenges, but in telling us how we got here, it broadens our understanding of the complex range of factors that bear upon the path we choose tomorrow. It informs our sense of what is determined and what is contingent in the evolution of the system. And by demonstrating the long-term consequences of sometimes poorly-considered decisions, it may also reinforce our awareness of the heavy obligation that transport planners bear for the welfare of future generations.

Melbourne's liveability index

The Age's third Liveable Melbourne study ranks each of the city's 321 suburbs according to 15 criteria, including crime, transport, mobile and internet access, and access to schools, parks and cafes.



SOURCE: Tract / Deloitte Access Economics