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Institutional Barriers to Sustainable Transport
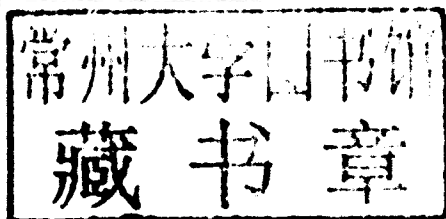
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Institutional Barriers to Sustainable Transport

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'Cahill Expressway exit ramp, Sydney – a subtle message to transport policy makers?' Photo: Carey Curtis

If things need to change look to yourself first

Notes on Authors

Carey Curtis is Professor in City Planning and Transport at Curtin University, Australia. She is a Partner of the Australasian Centre for the Governance and Management of Urban Transport and Chairs the International Editorial Board of the journal *Urban Policy and Research*.

Nicholas Low is Professor in environmental planning at the University of Melbourne, Australia. He is Associate Director of the Australasian Centre for the Governance and Management of Urban Transport (GAMUT). He is a member of the International Editorial Board of the journal *Urban Policy and Research*.

Preface

Much research has answered the question 'what can make economic activity on this planet sustainable?' Yet we see ever growing depletion of the biosphere. It is time to ask what is *stopping* sustainability? This book is the culmination of a research project seeking an answer to that question in the field of transport and urban planning. The purpose of the book is to explain the importance of local and national institutional change in a world seeking to tackle global environmental problems such as climate change. Through an examination of transport planning in Australia, the book challenges the conventional wisdom by showing, through original research, how 'car dependence' is as much an institutional as a technical phenomenon.

To the engineers and consultants who have borne the major responsibility for transport planning since the beginning of the last century we say this. We salute your work and the immense professional competence you have displayed in carrying it out. The vision of road engineers was the vision of many in twentieth century society. Railway engineers worked hard to serve the demands of politicians to reduce dependence on the budget. The theory of path dependence specifically avoids any idea that the agents who diligently carry out the work of governments are to blame for following a path which all their intelligence tells them is desired by society. All we ask is for you now to look closely at where that path is leading and apply your undoubted problem solving skills to shaping a new path that will better serve to give cities and the planet a future.

Case studies in three metropolitan cities show how Australian transport policy has become institutionally fixated on a policy path dominated by private, road based transport. Exploration of key documents over some fifty years, and interviews with key actors, demonstrate the existence of storylines supporting infrastructure for cars and militating against investment in public transport and other forms of movement. Our research shows how policy systems become encrusted around investment to accommodate private cars, erecting an impenetrable barrier against more sustainable mobility and accessibility solutions.

The book represents a new approach to understanding transport policy that brings political-institutional analysis to what has traditionally been the domain of engineering and technology. The way its empirical content is connected to this theory and the issue of sustainability makes its findings applicable to most cities of the developed world, and to fields beyond transport planning.

Carey Curtis and Nicholas Low

Acknowledgements

The writing of this book was a collaborative effort of the two authors which merged insights and in which we mutually learned from and supported each other. However, we each have personal things we want to acknowledge which really can't be said jointly. Moreover there were different helpers in Perth and Melbourne, and at different times, during the research. So this section of the book is the only one in which we make separate contributions.

Carey Curtis

Among the significant things I learnt, in 2010, was the importance of acknowledgement. It was suggested that the thing you most want for yourself is the thing you are least able to give to others. So here I want to rectify any possible failing on my part by acknowledging just how much support and love my partner David gives to me. To my son Janni, who from a very early age picked up the planning challenge to turn our cities towards a more sustainable path, I enjoy our interesting policy debates! I also want to acknowledge David's son, Simon Nicholson (1994 – 2010). In Simon's case we worked hard to give him the acknowledgement he so needed. Perhaps I saw in him what I have always yearned, but for Simon our acknowledgement was not enough – he longed for someone closer to him to meet his needs. May you rest in peace Simon for you are sadly missed by all those close to you. We will never know what gifts you had yet to bring.

Aside from my personal acknowledgements, I must also thank my fellow author. Nick's persistence in seeking a research grant saw our work develop. An Australian Research Council Grant (DP0450709) enabled the study of the three Australian cities. We have made equal contributions in this book and the research that it draws from. I have drawn on Nick's strength as a theorist and political scientist and in return my contribution has been to the empirical research – systematizing the methodology to enable data collection across three cities (each with different institutional structures and processes) and analyzing a large body of data and synthesizing this across the three cities.

I thank the research assistants who supported my contribution to this research for different periods during the three year project: Carlindi Holling, Melanie Montgomery, Diane Daze, Anthony Kent. Without their diligence and persistence in gathering data the possibility of us bringing this book to fruition would have been lost. Oscar Thomson assisted with figures and referencing. I also acknowledge the wise counsel I have received from fellow transport and planning practitioners

in Western Australia. They are the people I can turn to for local and historical knowledge about the way in which transport planning and policy has taken shape. In this respect I thank Ian Ker, Stuart Hicks and Ian Alexander; each has been active in transport and city planning for a large part of the study period. I thank Glen Searle for his guidance with the Sydney case. I thank my colleagues at Curtin University for the support provided by protecting my time so that I could work on this book.

Nicholas Low

First, on a personal note, I want to say that Elizabeth, my wife, has always been tolerant of the inevitable strains that occur when I'm writing a book. When writing, I'm often conscious of Liz metaphorically looking over my shoulder. With a Melbourne University degree (English and Geography majors) and a career behind her as a secondary teacher, she is a good critic. Now she is a ceramic artist of distinction (Liz Low) and I hope I have been able to return the support for her work that she has given me in mine.

Carey has been a good friend and colleague, and I depend on her not least for the methodological rigour she brings to empirical research. But of course there is much more than that to thank her for. She brings to our work both theoretical insights and high level practical experience of urban planning as a member of the Western Australian Planning Commission. For some time now Carey has been one of Australia's leading planning scholars. We both come from a planning background and support each other in the conviction that transport planning is too important to city futures to be left entirely to transport planners.

There are two scholars who I also particularly want to thank for their contribution to the research. First, Professor Brendan Gleeson was a principal investigator in the ARC Discovery Project (DP0450709) which was the core of the research. Because of his own workload he could not contribute to the book, but I warmly acknowledge his part in the research. The second is Professor Bill Russell whose work on the federal role in transport planning I greatly value and who is the co-author of Chapter 4. This book could not have been written without their contribution. My thanks also go to those who enjoy and support research at the Faculty of Architecture, Building and Planning of the University of Melbourne: both scholars and professional staff.

Institutional benefactors I want to thank are, first (in time), The University of Melbourne which awarded me small grants in 2001 and 2002 that helped provide the foundation for the successful bid to the Australian Research Council. I also want to thank the Volvo Research and Educational Foundations which funded the GAMUT Research Centre in Sustainable Urban Transport from 2006 to the present, of which I was Director up to the end of 2010. GAMUT and its partners (Carey is one) helped me to view future urban transport in a broader and deeper perspective.

Most important to the research have been in approximately chronological order, Dr Emma Rush, who assisted the empirical research in the early years; Ms Abbe Villis who worked on the interviews with key policy shapers in Melbourne, and Ms Rachel Astle who took over from Emma in the later years of the project. They are meticulous researchers and in working with them I gained many insights which truly enriched the research. I also want to thank and acknowledge the splendid drafting of diagrams and figures by Ms Chandra Jayasuriya, cartographer at the University of Melbourne.

Finally we both thank Valerie Rose at Ashgate for her patience, support and understanding when, with the events of 2010, the book took longer to complete than we had planned. Valerie provided a much needed sense of perspective at a critical time.

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Table 7.3 reproduced with the permission of Dr Garry Glazebrook

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Introduction

The twentieth-century vision of urban transport contained five crucial elements. First, the vision itself was of unimpeded, individual, motorized mobility. Along with this promise of individual mobility, went speed. Vehicles should at all times be able to travel at speeds consistent both with their design capacities and a reasonable level of safety for the drivers and passengers. Second, however, the attempt to realize this promise for all who could drive provoked traffic congestion, which then became the dominant transport problem of the twentieth century. Time lost moving at less than the optimum speed was time, and therefore money, wasted: the cost of congestion. Third, the solution to traffic congestion was to build more and better roads to accommodate private vehicles moving at speed. The higher the speed of the vehicles, the greater the separation between them necessary for the safety of people in cars, and so the more road space was required. Fourth, as realization of the promise became a historical fact, a simple technology was developed to project the growth of 'demand' for individual motorized mobility, and predict the road space needed to meet it. The fifth and final element was the implicit assumption that the planetary environment would for ever provide the necessary resources to fuel the vision and absorb its wastes.

This vision is powerful because it taps the human urge for freedom. 'Of all the specific liberties', wrote the philosopher Hannah Arendt, 'which may come into our minds when we hear the word "freedom", freedom of movement is historically the oldest and also the most elementary. Being able to depart for where we will is the prototypical gesture of being free' (Arendt, 1955: 9). The first half of the twentieth century was full of the ideology of human emancipation by the private car (see Davison, 2004: 112–116). The vision is strongly compatible with liberal capitalism: freedom of consumer choice, the free market and, above all, the free movement of labour. The transport vision grew within the shell of free market economics, which in turn emerged from the powers that shaped the eighteenth century philosophy of the Enlightenment. So perhaps it is fair to talk of the 'traffic enlightenment'.

The twentieth-century vision has nowhere been achieved, not even in that urban icon of the twentieth century, Los Angeles. Indeed the *Urban Mobility Report*, 2010, of the Texas Transportation Institute which tracks congestion in American cities reports Los Angeles as the most congested of the 15 largest US conurbations with 515 million hours travel delay in 2009 (Texas Transportation Institute, 2010). But in England the transformation of the urban environment necessary for its achievement was considered in the 'Buchanan Report', *Traffic in Towns*. In a portion of central London (east of Euston Road and north of Tottenham Court

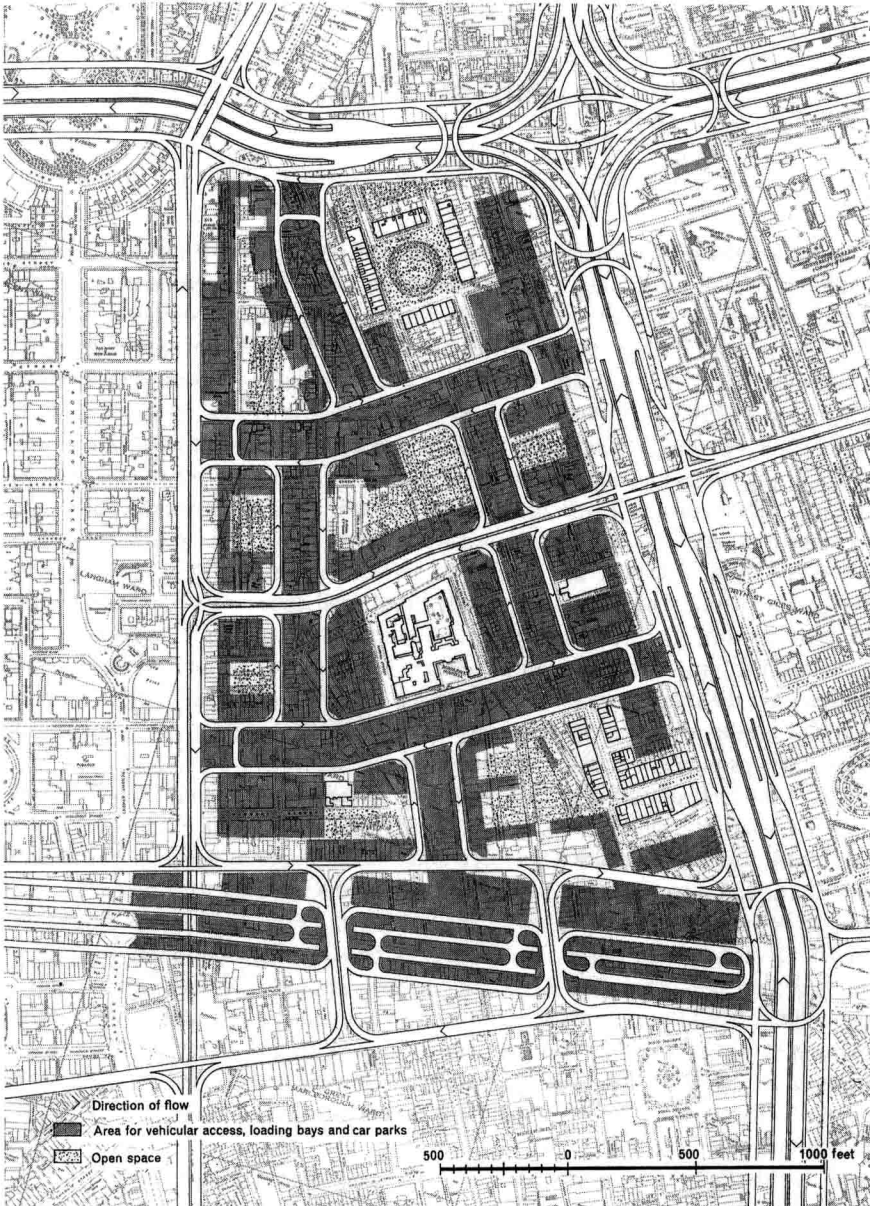**Figure 1.1   Buchanan's design for partial redevelopment**

Source: *Traffic in Towns, A Study of the long term problems of traffic in urban areas*, Report of the Working Group (led by Colin Buchanan) HMSO 1963 Figure 192, Page 147 'The design for partial redevelopment – plan at ground level showing the primary, district and local distributor road system together with the parking and service areas.'

Road), the Buchanan team calculated the consequences 'if every person should seek to go to work by car, every shopper to use a car, and the residents to have all they desired in the way of cars and parking spaces' (Working Group, 1963: 130). Their conclusion: 'when we considered the consequences for the primary [road] network of a vast continuous spread of areas similar to our study area, for this is what the middle of London really comprises, we realized that the network would become *impossibly* large and complicated' (ibid.). Nevertheless the Buchanan team decided to try out a compromise version: not what might be needed within the area itself, but 'what could be practically contrived in the way of a network to bring traffic to and from the area' (ibid.). The radical transformation required for even this compromise is shown in Figure 1.1. It was a shocking wholesale demolition of the urban fabric, and its reconstruction around a pattern of motorways and 'urban rooms' segregated from the main flows of road traffic.

At this high point of the 'traffic enlightenment' in the 1960s, when popular belief in the virtue of the private car was strongest, the modernist architecture of reconstruction was still fashionable, the level of oil field discovery was peaking, and the 'environment' meant merely the local physical space, the Buchanan Report was a tipping point of sorts, or perhaps a Janus gateway between the past and the future, facing two ways, at once recognizing the impossible cost of the vision yet still hankering after its partial realization.

Throughout the latter half of the twentieth century in the developed world, there were many complaints and protests launched against implementation of the 'traffic enlightenment' vision of motorized individual mobility. But they gained little traction. Commenting on the Buchanan Report, Peter Self, then chairman of the Town and Country Planning Association, sensibly observed, 'Should we not utilize the best means of transport for each particular purpose? For city centres, this would imply heavy use and almost complete reliance upon public transport, which is particularly well suited to this task. Conversely, the best prospects for motorization surely lie in the conception of a regional complex of new and expanded towns, each relatively small' (Self, 1963: 1228). But by the 1960s an institutional carapace of organizations, policies, beliefs and practices had, throughout the developed world, been built around the vision, protecting it from challenge from without.

It was never enough to show that implementation of the vision had serious negative side effects or externalities. It was never enough to show that the vision was not equally applauded by everybody, that some sections of the population were losers from its pursuit. It was not enough to point out the vision's large opportunity costs. It was not enough to demonstrate that pursuit of the vision in urban areas was destructive of the quality of the urban environment. It was not enough to show that building or improving roads only added to traffic on the road system. The policy path was sufficiently entrenched to brush off such challenges. Despite more subtle arguments to the contrary, the conventional wisdom continues to assert that fighting congestion is in the public interest, that the public are voting with their wallets to buy and use cars, and that the rest are vested interests with

axes to grind. If the result is traffic congestion, the common sense solution is to build more road space to free up bottlenecks. It is politically 'courageous' to oppose such popular trends.

What has finally exposed the glorious vision as a lying mirage are two discoveries of the last century whose consequences have yet to be fully confronted by the state apparatuses of our times. These are the catastrophe of climate change induced by combustion of fossil fuel (Weart, 2003, provides a fine and readable account of the discovery of human induced climate change), and the peak and subsequent decline of the oil supply (Deffeyes, 2002; Campbell, 2005).[1] Whatever the individual pleasures – and they are many – of the use of private motor vehicles, a vision in which their use is the dominant mode of urban transport cannot be defended when only a small rich minority will be able to afford it, and when its pursuit causes climate change. The world today stands on the threshold of a mobility catastrophe. The peak of oil production and climate change immediately confront the world, and governments around the world have yet to offer a robust and truly effective solution. It is not enough to argue that vehicles will have to change. Rather *urban transport*, and possibly our habits of mobility, will have to change. The forces preventing that change are now shown to be deeply irrational.

Many different kinds of values, some of them contradictory, are usually rolled up in the term 'sustainable' (Low, 2003). They will not be debated here. Suffice it to say that a transport vision that does not recognize and is not adapted to the realities of climate change and peak oil is not sustainable. The purpose of this book is to report an investigation of the institutional barriers preventing the development of a new vision compatible with these realities and in those terms 'sustainable'.

Research Approach

This book draws on a major research project which set out to examine one particular policy domain, transport, in order to examine how discursive and institutional structures within government influence the achievement of sustainability targets. Our research questioned how far and fast government agencies move policy towards environmental sustainability. We argued that this depends not only on plans and programmes espousing the goal of sustainability, but also on the existence of barriers to implementation, and opportunities for innovation, resulting from existing discursive and institutional structures. The central hypothesis is that 'discourse networks' play a key role in the paradigm shift entailed by 'sustainable development'.

The 'discourse network' is a concept used to explain the interconnectedness of ideas, decision-makers and their mental models of reality: what is 'important',

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1   There is a debate about whether the peak of oil production has passed or is still to come. But the facts are mired in the politics of oil. There is really no *scientific* debate worth mentioning about the facts of climate change.