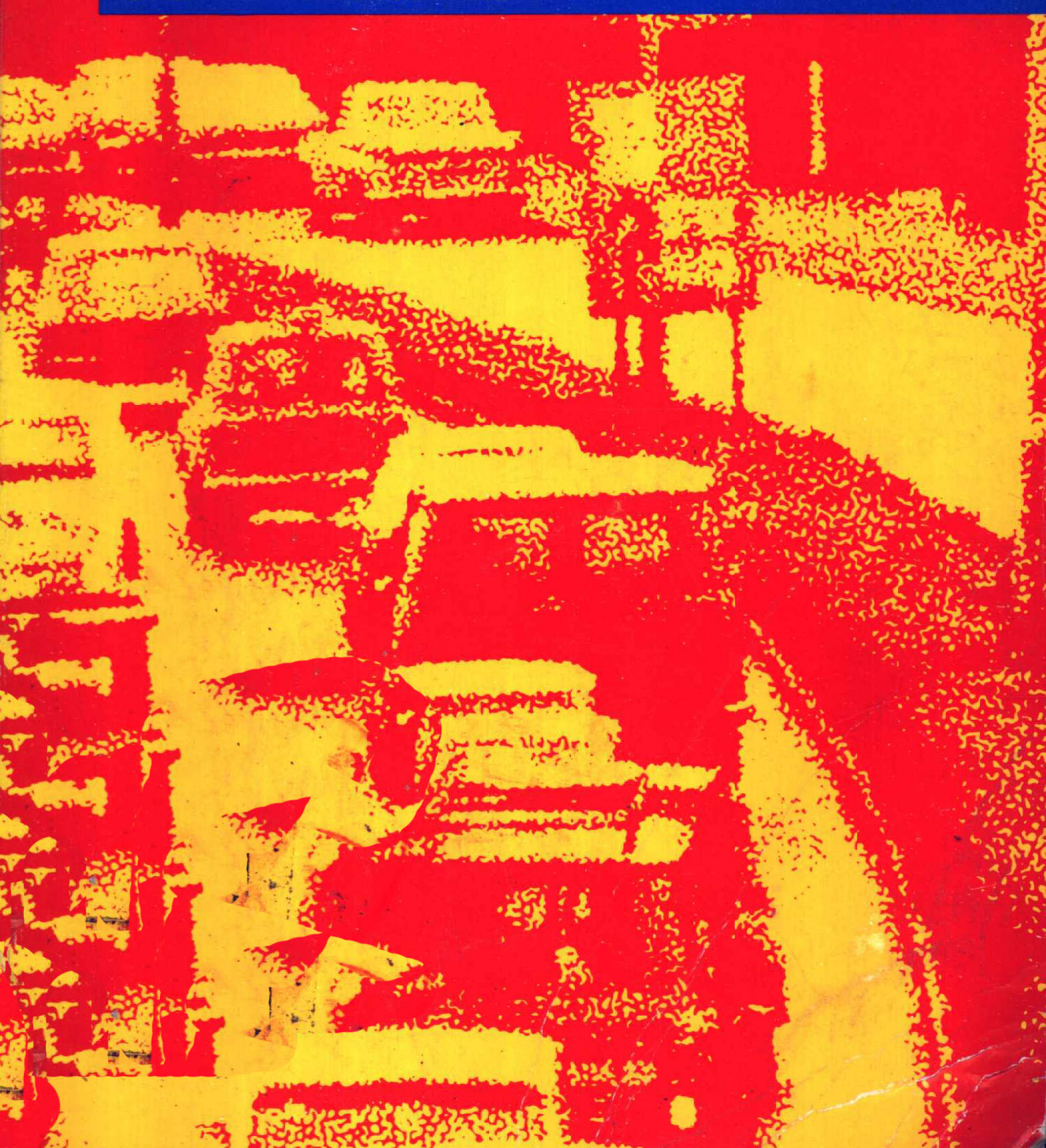


TRANSPORT PLANNING

Vision and Practice

John Adams

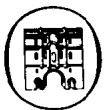


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TRANSPORT PLANNING

Vision and Practice

Transport and mobility have become important factors influencing both urban and rural patterns of life in the developed and, increasingly, in the developing countries. Transport planning has therefore moved on from being a local issue to become a matter of national and international concern.

John Adams provides a systematic and detailed critique of the contemporary practice of transport planning. He shows how past transport policies have blighted cities, suburbs and countryside alike, led to increased death and injury on the roads, and offered the whole of the motorized world as a hostage to the oil-producing countries. He argues that the dangers of these policies should be fully grasped before similar practices are foisted on parts of the world where western culture has not yet been fully adopted, and where society is being asked to sacrifice things of present value (established communities and stable lifestyles) for the promise of highly dubious future benefits.

In this powerfully argued book, John Adams urges us all to consider whether increased mobility is really synonymous with progress, and to take a more active part in planning decisions that may adversely affect our futures. This book will be of great interest to all those concerned with environmental issues and will also provide stimulating reading for students of the social sciences and government practices.

THE AUTHOR

John Adams is a Lecturer in Geography at University College, London. He has written many articles on planning, with a particular emphasis on environmental issues.

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Transport planning

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This book represents a drawing together of material that I have published over the past ten years. It borrows bits and pieces from contributions to the following books and journals:

'Acoustics Bulletin', 'African Urban Notes', 'Architectural Design', 'Area', 'Changing London', 'Ecologist', 'Environment and Planning', 'Geographical Journal', 'Geographical Magazine', 'Geography of Population', 'Haltwhistle Quarterly', 'Industrial Marketing Management', 'Journal of the Royal Statistical Society', 'London Journal', 'Municipal Engineering', 'New Society', 'People and their Settlements', 'Resurgence', 'Science for People', 'Systems Modelling', 'The Surveyor', 'Transport Policy Tomorrow', and 'Vole'. The most substantial of these borrowings are from 'Environment and Planning' - Chapter 14 (1977, vol. 9), Chapter 16 (1972, vol. 4), and Appendix I (1974, vol. 6); 'Vole' - Chapter 13 (1979, vol. 2, no. 7), Chapter 15 (1978, vol. 1, no. 10), Appendix III (1979, vol. 2, no. 10), and Appendix II (1977, vol. 1, no. 1); and 'Changing London' (University Tutorial Press, 1978) - Chapter 4. Chapters 9 and 10 include material originally prepared for an Open University statistics course.

Part II, which deals with transport planning practice in Britain, consists mostly of material that has not been published before. This is because the material in it, when submitted to the 'appropriate' journals, has been consistently rejected. Chapter 11 on cost-benefit analysis, for example, when submitted in essentially the form in which it is presented here to the 'Journal of Transport Economics and Policy' elicited the following reply, which I quote in full:

I am sorry to tell you that your article is not suitable for inclusion in the Journal. Thank you for submitting it.

When submitted to the 'Ecologist', it elicited a reply with which I am not inclined to quarrel:

I do not think that any of our readers would expect a Department of the Environment cost benefit analysis to make any sense in the first place.

When submitted to 'Regional Studies' it was rejected with the following piece of advice:

You should appreciate by now that the entire academic community operates by a system of peer group reference. Such a system is inherently conservative. If you want to get your views accepted by your peers, then you must play the game according to their rules. Personally I am sympathetic to your arguments but I think they are best carried

forward outside of academia. As a tenured lecturer you are free to do this and indeed should do this. You should reserve what you may regard as more dull fare for the learned journals.

I am indebted to Teresa Filippi and Annabel Swindells for typing not only the final copy but numerous intermediate drafts, and to the cartographic and photographic units of the geography departments of the University of Western Ontario and University College London for the production of the illustrations.

I have been discussing and arguing about the subject matter of this book with many people for many years and have incurred more debts than I can list. But I would especially like to thank Duke Maskell who is the most stimulating arguer I know.

PREFACE

The book's organization reflects the development of my own views and doubts about the nature of 'progress' and the extent to which it can be planned. The view that 'development' is a diffusion process is still a deeply entrenched orthodoxy among transport planners. According to this view, the developed world has what the underdeveloped world wants, and anything that increases the contact between the two will assist the transfer of attitudes, skills and capital necessary to bring the latter up to the level of the former. This now seems to me an idea that is both naive and pernicious.

In the early 1960s, as a believer in the idea, I participated in the diffusion process. As a teacher in northern Nigeria, I was a part of an extremely selective educational system whose principal effect was the inculcation of its students with an acute sense of dissatisfaction with their village origins. It was rarely a constructive dissatisfaction but one that bred a desire to escape from these origins to the cities, which had no useful employment to offer them. After two years my contract ended and I flew out.

In retrospect this experience and the subsequent experience of writing a PhD thesis on transport and communications linkages in West Africa have forced me to recognize the arrogance inherent in the diffusionist view of progress, and persuaded me that the advice of experts who do not have to live their lives amid the consequences of their advice is likely to be untrustworthy. It also persuaded me of the importance of trying to view local problems in their global context. The level of international interdependence fostered by developments in transport and communications is now so great that it cannot be safely ignored in the planning of further developments. Part I, therefore, ventures a global perspective on transport planning.

Chapter 1 examines the belief shared by most transport planners that a high level of mobility is the legitimate aspiration of all people everywhere, and that it is the transport planner's job to help them achieve it.

Chapter 2 relates this belief to more general theories of progress and economic development that are embodied in what is termed a 'transitionalist' view of history. History, according to this view, is the story of mankind's transition from a state of poverty and subjection to the forces of nature, to a state of universal affluence and control over the forces of nature. It is a story of economic transition, demographic transition, urban transition, and *mobility transition*. All are essential aspects of the same global transition

process, but it is the mobility transition that is responsible for involving distant parts of the world ever more closely in each other's affairs, and which makes it increasingly necessary to see transport problems in their global perspective.

Chapter 3 looks at the relationship between the mobility transition and the urban transition and identifies some intractable problems that these transitions jointly have created.

Chapter 4 examines transport problems in London. These problems, it is argued, are typical of those of almost all large cities in developed countries that were built before the car was a widely available form of transport.

Chapter 5 notes that a mobility transition implies an energy transition. Providing the energy necessary to achieve the levels of mobility currently being planned will, it is argued, almost certainly be impossible, and would, if it were possible, entail unacceptable costs.

Chapter 6 explores the paradox that improved methods of transport and communications are widening the gulf between the rich and the poor and are resulting in a world increasingly divided against itself.

Chapter 7 examines the way in which conventional accident statistics grossly understate the importance of road accidents as a cause of death in countries with high levels of car ownership, and discusses the curious reluctance of such countries to take effective measures to reduce the accident toll.

Societies in the grip of simplistic visions of progress can rationalize acts of incredible self-destructiveness. Cargo cults present an intriguing example. There exist in Melanesia groups of primitive people whose bizarre irrationality has captured the imagination of anthropologists from developed countries. They are Messianic religious sects whose origin is generally attributed to the psychological impact on a technologically backward people of the huge quantities of cargo disgorged from the ships and aircraft of the occupying forces during the Second World War. The millennium, according to the cosmic view of these cults, will be associated with an unlimited abundance of cargo. It is a demanding faith. In order to demonstrate their worthiness as recipients of the cargo, cult members are required to engage in the wholesale destruction of traditional forms of wealth. Such behaviour seems to me not unlike that advocated in developed countries by the proponents of economic growth for ever more. The destruction of traditional forms of wealth - treasured landscapes, established communities, wildlife, and ways of human life - required by the architects of this vision is on a vastly greater scale, but in both cases society is asked to sacrifice things of present value for the promise of highly dubious future benefits.

Part II is devoted to an examination of the rationalization rituals of pro-growth transport planners in Britain. Transport planning has become an international craft. The methods and practices of transport planners in Britain have much in common with those of

their counterparts in numerous other countries. The lessons drawn for Britain have, therefore, a wider relevance.

Chapter 8 describes briefly the procedural steps involved in designing and building a new road. It discusses the importance of the policy environment within which the steps are taken, and attributes the troubles encountered by the planners at public inquiries to the breakdown of the consensus about the goals of policy.

Chapters 9 and 10 look at the crucial role played by traffic forecasts in transport planning and argue that the forecasts have become covert policies for which neither the forecasters nor the policy-makers will assume responsibility.

Chapter 11 examines procedures of 'assessment'. It is argued that the economic assessment procedures employed to make transport planning decisions are incapable of assessing the desirability of traffic growth because the desirability of growth is embodied in the assumptions out of which the assessment models are constructed.

Chapter 12 explores the reasons why 'independent' public inquiries have so conspicuously failed to convince a great many people of the wisdom and justice of the Department of Transport's planning decisions, and concludes that it is because the inquiries are not independent.

Rationalization involves the invention of acceptable explanations for behaviour that has its origin in the subconscious. An understanding of the rationalization rituals of pro-growth transport planning requires an understanding of its subconscious motivating impulses. Part III contains an exploration of this murky metaphysical territory.

Chapter 13 depicts transport planning as a campaign to eradicate the 'disutility' of distance, and invites the reader to contemplate the consequences of the campaign succeeding.

Chapter 14 argues that the growth of mobility and the growth of esoteric planning technology are mutually supporting trends which are progressively diminishing the influence that an ordinary individual can have on the institutions that shape his life.

Chapter 15 describes economics as the study of the most efficient means of catering to insatiable appetites and concludes that economics is unlikely to be helpful in the search for solutions to problems that are the product of the ethos of economics.

Chapter 16 examines the inherently divisive nature of high speed transport and communications and concludes that more of it can only be bad for most of us.

SOME RELATED BOOKS

QUANTITATIVE GEOGRAPHY

N. Wrigley and R. Bennett

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Part I

PROBLEMS: a global perspective

1 THE LADDER OF PROGRESS

Car ownership ... *should* increase, for personal mobility is what people want, and those who already have it should not try to pull the ladder up behind them ... (1)

That everyone is entitled tomorrow to what the most fortunate enjoy today is a belief that has understandable appeal for politicians and electorates of all ideological hues. It is a belief that dominates the planning of transport and communications, and to challenge it is widely thought to be tantamount to committing political suicide. The following quotation is taken from 'Socialist Commentary' but would be equally at home in the manifestos of almost all political parties everywhere:

no politician can ride roughshod over such a strong desire for personal or family transport. In the society of the future one must continue to expect that a wish for a car, or some similar means of personal transport, will rank almost as high among the necessities of life as a decent home, even for the poorest families. (2)

Sir Colin Buchanan, perhaps Britain's best-known and most influential transport planner, explains why the desire for automobile personal mobility is so strong, and argues that it must not be denied:

I have never managed to make very much money, and for the most part, in my half century of motoring, I have made do with second-hand cars. But what an enrichment of life has resulted! Marvellous holidays - camping, caravanning, much of Europe at our disposal in a three week vacation. Short visits in infinite variety - to relatives and friends, to the sea, out into the country, to great houses, gardens, zoos and parks. Spur of the moment trips - it is a fine day so out we go Why cannot we be less hypocritical and admit that a motor car is just about the most convenient device that we ever invented, and that possession of it and usage in moderation is a perfectly legitimate ambition for all classes of people. (3)

The above three statements have been taken from discussions of British transport planning problems arising from the growth of car ownership, but the strength of the desire for increased personal mobility, and the legitimacy that is claimed for it are not confined to Britain. A similar spirit is found in John Rae's 'The Road and the Car in American Life':

Transportation is essential to social progress; to be exact, transportation is social progress because it has been

4 Problems: a global perspective

throughout history the way in which not only goods and services but ideas as well were exchanged among peoples.... The Road and the Car together have an enormous capacity for promoting economic growth, raising standards of living, and creating a good society. The challenge before us is to implement this capacity. (4)

A belief in the existence of a ladder of progress that all classes of people everywhere can and should climb also informs discussions about the prospects for travel by airplane and other more exotic means. Sir Peter Masefield, former head of the British Airports Authority, is optimistic about the possibilities of extending the ladder:

I have no doubt that the Ballistic Transport will appear in the wake of the Space Shuttle and in the train of the astronauts. Anywhere to anywhere in an hour - reclining comfortably, oblivious to accelerations or surroundings after a pleasant knockout draught and before an instant reviver on arrival. Such ballistic transport will not only be very quick but also very cheap.... What is clear is that air transport still has a vast contribution to make to the prosperity, the happiness and the well being of mankind. Its disbenefits, of noise and congestion, can be phased out - its benefits enhanced. (5)

Such attitudes are, historically speaking, relatively recent. Throughout history most people in most places have led pedestrian lives. Their settlement patterns and travelling have been, as a consequence, very tightly constrained. Such vehicular transport as existed was powered by humans, animals or wind. The rich had more mobility than the poor, but nobody had very much. Mythologies abounding in advanced technologies - flying carpets, winged chariots, seven-league boots, broomsticks and the like - attest to a pervasive desire for more, but in technologically unimaginative ages most people were resigned to this remaining the prerogative of the gods. Indeed the legend of Icarus suggests that the very idea of a ladder by which mere mortals might attain such mobility was considered an impious one. Mobility, generally speaking, was something rudimentary that people provided for themselves rather than something planned and provided by the state.

At a time that roughly coincides with the beginning of industrialization in England there began a period of remarkable reductions in the cost of transport and even more remarkable increases in its speed and comfort and in the numbers who made use of it. The achievements of the gods have been equalled and surpassed. Concorde can fly faster than Apollo's flaming chariot and advances in the technology of telecommunications have created a capability for exchanging messages that far exceeds anything ever attributed to Mercury. There have been those who have doubted the desirability of these achievements - Thoreau writing at the beginning of the railway age and Illich writing at the end of it are examples - but the transport and communications history

of this period is almost invariably told as a story of economic and social progress following in the train of technological advance. In this story Icarus's vices of hubris and impiety have been transformed into a heroism that dares to subject the forces of nature. It is a story of mankind becoming, if not more god-like, at least more civilized.

Histories of transport and communications, the planning literature, and the speeches of politicians on the subject are dominated by the ladder metaphor. The historians chart the past progress of mankind's ascent, the planners and politicians project this progress into the future. Harold Perkin, in a history of Britain's railways, exemplifies this spirit of progress that pervades almost all such literature:

All civilization depends on communication - between man and man, town and town, country and country, perhaps in the future between planet and planet.... The invention of the railway, next to that of the power driven factory, is Britain's greatest contribution to the progress of civilization, for it was here that the real conquest of space began. Whatever new frontiers of space men may conquer in the last third of the twentieth century, the first conquest of physical distance by mechanical power was the revolution in communications from which all the rest have stemmed. (6)

What has stemmed from it is an impressive amount of what advertising copy-writers for airlines call 'earth shrinking'. Figures 1.1 and 1.2 give an impression of the magnitude of the shrinkage that has taken place as the time-distance between places has been progressively reduced. Following the suggestion of Janelle, (7) we can measure the rate of this shrinkage (what Janelle calls time-space convergence) by calculating the rate at which any two places have approached each other over time. Since the middle of the seventeenth century London and Edinburgh have been approaching each other at a rate of about one hour per year, and since the early nineteenth century New York and London have been approaching each other at about four and a half hours a year. Janelle provides a number of other examples: since 1860 Leningrad has been approaching Moscow at 8.35 minutes a year, Saginaw and Detroit Michigan moved closer at a rate of 9.9 minutes a year between 1840 and 1966, and Boston approached New York at a speed of twenty-five minutes a year between 1800 and 1965. In all these cases the rate of shrinkage was greatest at the beginning of the period and had slowed to almost nothing by the end of it. In the case of travel between London and Edinburgh, the travel between airports and city centres and the checking-in formalities at the airports can frequently take longer than the flight itself, with the result that there has probably been no reduction in average travel times in the past ten years. And although Concorde has recently reduced the flying time between New York and London by over three hours, the addition of customs and immigration formalities and security checks to the checking-in and city centre travel required for domestic flights can commonly make the terrestrial