

OF CARS, SUSTAINABILITY AND EQUITY: A CANADIAN CASE STUDY¹

Ted Schrecker
Associate Director (Environmental Ethics)
Westminster Institute for Ethics and Human Values
361 Windermere Road, London, Ontario N6G 2K3 CANADA
Phone (519) 673-0046; fax (519) 673-5016

Address after 30 September 1996:
176 York Street, Suite 31, London, Ontario N6A 1B5 CANADA
Phone/fax (519) 432-5649

E-mail 102375.1077@compuserve.com

Introduction: The Automobile and the Sociotechnical Order

Political theorist Langdon Winner rejects the conventional belief that modern technologies are neutral and apolitical. In defending the claim that "artifacts have politics,"² he argues that "the interconnected systems of manufacturing, communications, transportation and the like that have arisen during the past two centuries ... form de facto a constitution of sorts, the constitution of a sociotechnical order."³ There is no clearer illustration of this point than the automobile.

Perhaps the most conspicuous and distinctive feature of contemporary industrial society, it is both an immensely useful appliance and a cultural icon. Its associated infrastructure of roads, bridges,

1. This article is accurate to late fall 1996, when the manuscript was submitted with revisions in response to the comments of reviewers.

2. Langdon Winner, *The Whale and the Reactor: A Search for Limits in an Age of High Technology* (Chicago: University of Chicago Press, 1986), pp. 3-58.

3. *Ibid.*, p. 47.

service stations, shopping malls and parking lots is the dominant influence on the urban and suburban landscapes. Automobiles also dominate our lives in more subtle ways, reflected in Eduardo Galeano's observation a quarter-century ago that in the streets of Caracas, "enormous and expensive machines abound for producing pleasure or speed or sound or light. Like poor frightened ants we face these machines and wonder: 'Jesus, is each of these really worth more than me?'".⁴

It is possible to conceive of a future in which automobiles would play a far more modest part in our lives and our cityscapes. Academic planners and activists alike have put forward a vision of cities in which high residential densities and mixed uses make automobile travel less necessary and in which various "traffic calming" measures, such as residential streets designed to limit traffic speeds and volumes, are used to reduce the impact of traffic flows on safety and the quality of city life.⁵ With reference to a planning exercise recently completed in the city of London (Ontario), Canada, the present article shows how superficially neutral planning methodologies can embody a strong bias against such a future, and situates the issue of auto-centred land use planning within the broader context of urban ecology and political economy.

There are important reasons to reduce the importance of automobiles in urban land use planning, quite apart from the aesthetic and quality-of-life concerns associated with the creation of a landscape of strip malls and parking lots. (Such concerns are admittedly intractable for purposes of policy; some people may actually like such a landscape, and many others may simply

4. Eduardo Galeano, "The Civilization of Black Gold," in *We Say No*, trans. Mark Fried and others (New York: W.W. Norton, 1992), p. 112.

5. Peter Calthorpe, *The Next American Metropolis: Ecology, Community, and the American Dream* (New York: Princeton Architectural Press, 1993); Citizens Advocating Responsible Transportation (CART), *Traffic Calming: The Solution to Urban Traffic and a New Vision for Neighbourhood Livability* (available from Sensible Transportation Options for People, 15405 SW 116th Avenue, #202B, Tigard, OR 97224-2600, U.S.A.); Peter Newman, Jeffrey Kenworthy and Peter Vintila, "Can we overcome automobile dependence? Physical planning in an age of urban cynicism," *Cities* 12 (1995), pp. 53-65.

tune it out or regard it as entirely outside their control.) Reliance on the automobile is one of the most conspicuously unsustainable aspects of human activity in North America almost regardless of how sustainability is defined. In addition to being a significant source of localized air pollution, automobiles contribute heavily to the industrialized countries' disproportionate share of global fossil fuel consumption and greenhouse gas emissions. Auto-related land uses such as roads, parking lots and car dealerships account for a remarkably high proportion of all land uses in urban areas, especially where urban population densities are low. There is a connection between land use and other environmental impacts, as well. Peter Newman and Jeffrey Kenworthy have demonstrated a striking inverse correlation between urban population density and gasoline consumption in 32 of the world's cities: the lower the density, the higher the fuel consumption.⁶ Such relationships are important because of their long-term nature. Road construction and upgrading have a strong effect on the feasible and economically attractive range of subsequent land use choices and patterns. Once established, those patterns leave cities and suburbs alike with only limited flexibility to respond to changed circumstances or citizen preferences; the constitution of the sociotechnical order is, quite literally, cast in concrete.

For this reason, the fact that auto-oriented settlement patterns create substantial differentials in access to mobility that are related to class, race, gender, age and (dis)ability should carry considerable ethical weight. Access to automobiles is not evenly distributed throughout the population. When distances or safety considerations preclude walking and when public transportation is inadequate, people under the legal driving age are dependent on others for transportation, as many a suburban parent will attest. So are many people of advanced years, or with a variety of medical conditions that preclude safe driving. Economic factors must also be considered. In 1993, at least 35 percent of households in the bottom one-fifth (quintile) of

6. Peter Newman and Jeffrey Kenworthy, "Transport and urban form in thirty-two of the world's principal cities," *Transport Reviews* 11 (1991), pp. 249-272.

Canada's income distribution, and at least 22 percent of those in the second quintile, did not own a vehicle. Among single-parent households with children under the age of 18, 34 percent did not own a vehicle; given the much more precarious economic status of households headed by a single female parent, it is reasonable to suppose that single mothers and their children are especially disadvantaged in this respect.⁷

The interactions of gender and economics are striking. Ann Markusen has pointed out "the lonely squandering of urban time" associated with a cityscape in which a woman working outside the home, yet with typical child-care responsibilities, might have to spend one hour and 55 minutes a day driving around.⁸ Not all women have access to a car; a study of commuting patterns in the Toronto suburb of Scarborough found that single mothers who worked full time outside the home, as a majority of them did, were especially likely to be "transit captives." This is hardly surprising given the high percentage of single mothers whose families live on incomes below official low-income cutoffs. Such women confront both special demands on their time (because transit routes tend not to be planned around the distinctive pattern of women's days) and serious restrictions on their employment options.⁹ The result amounts to a captive female labour force in certain parts of the suburbs.¹⁰

7. Figures are from Statistics Canada 13-218, *Household Facilities by Income and Other Characteristics*, 1993 (Ottawa: Supply and Services Canada, 1994), tables 9 and 4.9, respectively. The need for approximation arises because precise figures on the connections among low income, gender and lack of access to a vehicle are available only through custom calculations whose cost is estimated at \$400 by Statistics Canada.

8. Ann Markusen, "The Lonely Squandering of Urban Time," in J. Zimmerman (ed.), *The Technological Woman: Interfacing with Tomorrow* (New York: Praeger, 1983), pp. 94-101.

9. Gerda Wekerle and Brent Rutherford, "Employed Women in the Suburbs: Transportation Disadvantage in a Car-Centred Environment," *Alternatives: Perspectives on Society, Technology and Environment* 14 (no. 3, 1987), pp. 49-54.

10. *Ibid.*, see also Brent Rutherford and Gerda Wekerle, "Captive Rider, Captive Labor: Spatial Constraints and Women's Employment," *Urban Geography* 9 (1988), pp. 116-137.

The local environmental impacts of automobile use are disproportionately borne by those with modest incomes and assets. Urban property values tend to be inversely correlated with air quality, which is a function of industrial emissions but also, in most urban areas, of proximity to high volumes of vehicle traffic. Although more detailed research would serve to refine the observation, we can reliably infer that the least desirable (and perhaps least healthy) residential locations tend to be occupied by people who cannot go elsewhere, and that the air pollution, noise and safety hazards (at least for pets, small children and the elderly) associated with automobile traffic are all important contributors to the low perceived quality of residential life in those locations.

None of these situations just happened. Each is, at one level, the result of an accumulation of consumer decisions to buy cars and use them in preference to other modes of transportation, but the process of making such decisions disenfranchises a substantial proportion of the population: if you cannot afford or operate a car, you are without a vote in the transportation marketplace. More fundamental transportation choices are made at the level of public policy. In the United States, suburbanization was actively encouraged by federal subsidies for freeway construction; by the mortgage lending policies of federal agencies; and by the tax deductibility of mortgage interest.¹¹ In Canada, the province of Ontario alone provided grants totalling C\$ 3.3 billion between 1988 and 1992 to municipalities to cover part of the cost (usually 50 percent, but sometimes more) of road upgrading.¹² Ontario cities have therefore built roads with 50-cent dollars, effectively isolating

11. Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1985), pp. 190-218, 293; James A. Kushner, *Apartheid in America* (Frederick, MD: Associated Faculty Press, Inc.), pp. 20-30; Michael G.H. McGeary, "Ghetto Poverty and Federal Policies and Programs," in L. Lynn and M. McGeary (eds.), *Inner-City Poverty in the United States* (Washington, D.C.: National Academy Press, 1990), pp. 224-227, 231.

12. Ontario Ministry of Treasury and Economics, *Estimates* (Toronto, Government of Ontario, 1988-1992); Ontario Ministry of Municipal Affairs, *Provincial Financial Assistance to Municipalities, Boards and Commissions* (Toronto, Government of Ontario, 1988-92).

local taxpayers from direct financial feedback about the cost of cutting a few minutes from automotive travel time. Income and property tax systems designed without any reference to effects on the urban fabric have made parking lots a highly lucrative land use in many Canadian cities.¹³

Public policy choices about urban transportation are crucial in terms of making a transition to a future that is both more sustainable and more equitable. As suggested by Winner's concept of the constitution of a sociotechnical order, such decisions are laced with political meaning. Quite apart from environmental considerations, were a statute or constitutional amendment proposed whose effect was to entrench inequalities of the kind just outlined, it would probably be rejected out of hand as impermissibly discriminatory with reference to a number of categories (*e.g.* age, gender and disability) defined under both Canada's *Charter of Rights and Freedoms* and the national and various provincial human rights codes.¹⁴ Because of a variety of assumptions about the implausibility of more than incremental changes in the present role of technology in society,¹⁵ political choices about transportation planning have allowed these discriminatory effects as well as the more familiar environmental destruction associated with auto-related infrastructure to continue unchallenged, and even unexamined. The case study that follows helps us to understand how this process works.

13. Leonard Zehr, "Parking lots a paved paradise for investors," *The Globe and Mail*, August 22, 1995, pp. B1, B2.

14. Class is the exception: in a market based social and economic system organized around allocating resources (including access to the courts) based on ability to pay, and around the implicit correlation of moral worth with that ability, it would be extraordinary were courts to regard class as an invalid basis for discrimination. Indeed, the vocabulary of "discrimination" would probably be considered irrelevant.

15. See Kristin Shrader-Frechette, "Environmental Impact Assessment and the Fallacy of Unfinished Business," *Environmental Ethics* 4 (Spring 1982), esp. pp. 40-43.

Transportation Planning in London, Ontario: The Local Dimension

London, Ontario is a southwestern Ontario city of approximately 300,000 people located midway between Toronto and Windsor. Like most of its Ontario counterparts, its development has been shaped by the automobile for well over half a century.¹⁶ In 1992, overriding vehement objections from many surrounding townships, the provincial government (then controlled by the mildly social democratic New Democratic Party) allowed the City of London to annex some 26,000 hectares of land contiguous with its borders, making London's land area four-fifths as large as Metropolitan Toronto's. In July 1992 the *London Free Press* revealed that at least 65 substantial parcels of land in the areas to be annexed, ranging in size from 37 acres to 744 acres, were already in the hands of absentee owners. These speculators included many firms active in the London home building and commercial real estate market, at least one with strong provincial and national partisan connections. Such speculative land holdings amounted to more than 10 percent of the total area to be annexed and to more than 25 percent of the area to be annexed in London Township, on the city's northern edge, whose desirability as a residential and commercial location is enhanced by proximity to the city's largest hospital and to the University of Western Ontario.

In the aftermath of annexation the city's planning department began drafting a revised Official Plan, as required by the terms under which the Ontario government approved annexation, and contracted with IMC Consulting Group Inc. to conduct a Transportation Plan Review (TPR) as a key element of the exercise. The final report of the review is the focus of this section of the article; it consisted primarily of a list of road widening and upgrading projects costing an estimated C\$ 223 million by the year 2011,¹⁷ not including the costs of a high-speed ring road that would

16. Gerald T. Bloomfield, "No Parking Here to Corner: London Reshaped by the Automobile, 1911-61," *Urban History Review* 18 (no. 2, October 1989), pp. 139-158.

17. IMC Consulting Group, *London Transportation Plan Review: Executive Summary* (March 1994), p. 3.7 (Table 3.5). In this article I have cited both the Executive Summary of this study and the full report, because the Executive Summary provides both a more succinct summary of

eventually incorporate a number of existing multi-lane roads on the city's perimeter. The TPR recommended "corridor protection" for the route of the ring road, but made no attempt to estimate its cost.

Several criticisms can be made of the TPR. First, its time frame was inappropriately short, extending only to the year 2011, although both the roads proposed and the associated land use patterns will be around long after that.¹⁸ This makes potentially more serious its neglect of such possibilities as substantial increases in oil prices driven by international markets, or the long-term effects of continued increases in the cost of owning and operating a car combined with stagnation or decline in the real incomes of a substantial part of the population.

Second, it excluded *a priori* any consideration of arguments that a fundamental change in transportation planning priorities might be necessary. The study's authors stated flatly that "[t]ransportation planning is based largely on existing travel patterns, especially between home and work."¹⁹ The consultants selected a transportation strategy they labelled as Increased Transportation Management in preference to two alternative strategies, which they called Continuing Trends and Major Lifestyle Changes.²⁰ However, Increased Transportation Management actually represented at best a modest departure from the *status quo*. From today's share of 8.6 percent of total passenger trips, transit usage was projected to rise to just 10 percent in

conclusions and in some instances, especially on the topic of public participation, a more explicit statement of the authors' predispositions. All quotations from the Executive Summary have been checked for consistency with the findings of the full report.

18. This important point was reflected in the choice of a much more distant year (2040) as the endpoint for a regional planning exercise begun in 1992 by the Metropolitan Portland, Oregon planning department. See *Metro Region 2040 Update*, Fall 1994 (Portland: Metro Planning Department, 600 NE Grand Ave., Portland, OR 97232-2736).

19. IMC, *Executive Summary*, p. 1.1; see also IMC Consulting Group, *London Transportation Plan Review: Final Report* (March 1994), Part II, pp. 2.4, 2.7, 2.10.

20. IMC, *Final Report*, Part I, pp. 3.15-3.19.

2001 and 12 percent by 2011.²¹ Targets for transportation demand management were also modest,²² and only a limited number of measures to achieve them were proposed. Meanwhile, the TPR warned ominously that "if the auto trip reduction targets are not achieved, additional road improvements will be required" and strongly recommended protecting rights of way for future road widenings, just in case. To their credit, the consultants flagged the possibility of municipal acquisition for light rail transit purposes of rail corridors that might be abandoned in the future, while expressing caution about the "financial viability" of such a system.²³ However, that viability would in turn depend on how cheap and convenient other municipal policies had made automobile travel.

The alternative of Major Lifestyle Changes, according to the consultants, might involve not only using such corridors for crosstown transit and bicycle routes but also such measures as bans on private automobiles in the downtown core; construction of an extensive bicycle network; strict limits on the supply of parking in the city; and no further roadway construction.²⁴ However, it was dismissed on the basis that: "The `existing' general public does not appear to be ready to accept the significant lifestyle changes" that would be involved.²⁵ This is one instance among many in which the consultants invoked the constraint of public opinion, thereby precluding any thought of basic changes to the urban fabric or to a settlement pattern in which suburbanites commute to and from downtown jobs. Predictably, the study assumed that "the vast majority" of the city of London's projected population growth of 80,000 during the study period "will be

21. IMC, *Executive Summary*, p. 3.5

22. They consist of "a 15% reduction in use of low occupancy private autos during peak hours in the City." *Ibid.*, p. 4.1.

23. IMC, *Final Report*, Part II, p. 2.16.

24. *Ibid.*, Part I, p. 3.18.

25. *Ibid.*, Part I, p. 3.19.

accommodated through contiguous suburban expansion of existing neighbourhoods around the edge of the City," whereas most employment growth will occur downtown.

The option of promoting increased residential densities "through infill and redevelopment of older neighbourhoods" was dismissed as "costly and ... expected to face major opposition from existing residents who wish to retain the existing character of these older neighbourhoods."²⁶ The fact that many such neighbourhoods may be destroyed by the proximity of planned six-lane arterial roads, and that considerations of property acquisition cost would actually favour such destruction in preference to the acquisition of commercial property,²⁷ was not mentioned. Neither was the fact that drivers' ability to take short-cuts through residential neighbourhoods, behaviour which was cited as a justification for arterial road widenings,²⁸ can be effectively reduced by use of various traffic calming measures.²⁹

Third, given their frequent invocation of considerations of public opinion and public acceptability, the consultants' approach to public participation was disturbing. No public meetings were held, with the exception of a single two and a half hour introductory information meeting. The consultants claimed that public meetings only "bring out the same participatory individuals with self-selective [*sic*] biases."³⁰ Instead consumer surveys, focus groups, and a variety of briefing meetings with interest groups were used to solicit opinion on London's transportation future. Harking back to Winner's idea of the constitution of a sociotechnical order, even after the debasement of Canadian constitutional discourse by the federal Conservative government between 1984 and 1993, it is hard to imagine making constitutional decisions on the basis of polls and focus groups.

26. IMC, *Executive Summary*, p. 3.2

27. IMC, *Final Report*, Part II, pp. 3.6-3.7.

28. IMC, *Executive Summary*, p. 2.2.

29. CART, *Traffic Calming*, pp. 17-20; Calthorpe, *Next American Metropolis*, pp. 44-46, 95-101.

30. IMC, *Executive Summary*, p. 1.2.

The theoretical rationale for criticizing such an approach is well stated by Mark Sagoff, who has repeatedly observed that there may be dramatic differences between the preferences people state as consumers with respect to such issues as wilderness preservation and those they articulate as citizens: members of a community with at least some shared interests. For instance, people may have no interest in wilderness canoe tripping, regard theme parks as highly enjoyable, and nevertheless regard attempts to build a theme park in a wilderness area as thoroughly reprehensible.³¹ A similar dynamic might well emerge with respect to transportation planning: as consumers, Londoners might welcome the chance to shave a few minutes off their daily drives, but as citizens with a commitment to enhancing the quality of life in their community they might recognize and reject the negative environmental and social consequences of the road upgradings that would be necessary. Such a process of deliberation was precluded by the consultants' approach, which perhaps unintentionally reflected the discourse of privatization that now permeates almost every aspect of Canadian political life by assuming that the role of transportation consumer is the only relevant one.

31. Sagoff, "We Have Met the Enemy and He is Us, or, Conflict and Contradiction in Environmental Law," *Environmental Law* 12 (1982), pp. 283-315; Sagoff, "At the Shrine of Our Lady of Fatima, or, Why Political Questions Are Not All Economic," *Arizona Law Review* 23 (1981), pp. 1283-1298. This same point has been made more recently by Cass Sunstein in "Preferences and Politics," *Philosophy and Public Affairs* 20 (no. 1, Winter 1991), pp. 14-19.

Fourth, the technique used in the second stage of the consultants' study to compare various roadway capacity improvement options contained its own built-in biases. A scoring system was used to compare road projects on the basis of 21 criteria grouped under three headings: economic effects, effects on the social environment and effects on the natural environment. These criteria are shown in Table 1. For some criteria, quantitative responses could be provided; for instance, gasoline consumption associated with each project could be estimated in litres. Others could only be dealt with in qualitative terms; for instance, impacts on wildlife, vegetation, wetlands and watercourses were stated only as low, medium or high. The consultants then combined ratings of possible road projects on the 21 criteria into scores for each of the three broad categories; these were in turn combined to produce an overall rating. Since the alternative of doing nothing to the existing road system was included as an option, and since rankings on each of the 21 criteria were published as part of the consultants' report, the technique provided some degree of transparency. However, the deck was stacked in favour of an auto-oriented transportation future in a number of ways, having to do largely with the way the criteria were combined into three sets for purposes of evaluation.

INSERT TABLE 1 ABOUT HERE

For instance, minimizing wildlife, vegetation, wetland and watercourse impacts is clearly an environmental objective. It is less clear that minimizing auto emissions and energy consumption should be considered as such *within the terms of the study*, which presumed continued reliance on the automobile as a primary method of passenger transportation. Once this presumption is made, then the option that minimizes congestion and delay and provides for relatively high and constant travel speeds emerges as the most environmentally sound one ... thus biasing even the study's findings on environmental impacts in favour of building more and faster

roads. It could just as well be argued that the environmentally sound option is the one that does *not* provide these, and thereby does not cast in concrete a longer-term reliance on the automobile. There may well be a trade-off between short term congestion impacts and longer-term sustainability, but the study's approach does nothing to help us understand that tradeoff. It also, of course, builds in a powerful and consistent bias against the option of not expanding the road system, an option whose impact on wildlife, vegetation, wetlands and watercourses is by definition minimal.

A similar bias was built into the consultants' treatment of the social environment. Under the criterion of meeting future automobile travel demand, whose inclusion is in itself revealing, any option that would make peak-hour automobile travel less convenient was rated negatively. (The presumption of such "predict and provide" planning is that increased road capacity will necessarily reduce congestion and thereby save both time and fuel. However, a substantial body of evidence suggests that these effects are at least partially offset by additional traffic induced by the increased convenience and speed associated with the capacity improvement.³²) Selective attention to evidence is also found in the consultants' treatment of minimizing residential short-cutting by drivers, where any option that reduced peak-hour delays on arterial roads received high marks. Once again, the presumption in favour of the car is evident; use of traffic-calming measures to achieve the same effect was dismissed with the claim that they "should not be expected to solve traffic problems which originate from outside the neighbourhood."³³ Indeed, the authors of the report did not take the concept of traffic calming seriously except with reference to school zones, and appeared to regard as irrelevant a variety of European experiences with traffic

32. CART, *Traffic Calming*, p. 11; Newman and Kenworthy, "Transport and urban form," pp. 264-265; [U.K.] Standing Advisory Committee on Trunk Road Assessment, *Trunk Roads and the Generation of Traffic* (London: Her Majesty's Stationery Office, December 1994), chapters 4 and 11.

33. IMC, *Final Report*, Part III, p. 3.7.

calming. These two examples show that an underlying fixation on road-building was perhaps embedded even more strongly in the treatment of the social environment than in the treatment of the natural environment. So, too, does the inclusion of good emergency vehicle access as a criterion under the social environment heading; this was assessed based simply on increased overall road travel speed, thus adding weight in the rankings to any measure that would contribute to that objective.³⁴

Explicit adoption by municipal government of sustainability as a guiding principle might have generated quite a different methodological approach. So, too, might even cursory attention to equity issues: in the London study, such issues were simply not considered, despite the substantial proportion of the population that is essentially immobilized by auto-centred transportation planning and the land use patterns it supports. For households or individuals without access to a car, peak-hour auto travel times are likely to be of little interest or relevance, so the question then becomes one of *whose* travel costs are considered important. The London study effectively treated such people as invisible: for planning purposes, they just didn't count. For working class families who cannot afford to move out of existing neighbourhoods to glossy new suburbs, it is at least conceivable that the preservation of those neighbourhoods might be much more important than the opportunities supposedly associated with even quicker travel into and out of the downtown core.

In evaluating social impacts of road upgrading on existing communities, a high impact rating was assigned if increased traffic volumes would affect "stable," primarily residential areas; it was considered less important to minimize traffic impacts on areas whose "primarily residential character was in transition with relatively high tenant levels, existing redevelopments and intensive zoning potential."³⁵ So tenants are not really residents, and stable communities can

34. *Ibid.*, Part II, p. 3.12.

35. *Ibid.*, Part II, pp. 3.11-3.12.

consist only of homeowners. These are just the most obvious examples of class bias in the TPR; they suffice to underscore the fact that the consequences of transportation planning are not distributionally neutral, and it is not a win-win exercise: there will be winners and losers, even before we consider such issues as sustainability and implications for future generations. Like the consistent disregard of sustainability issues in the consultants' study, the disregard of such issues demands explicit defence.

A fifth and final curious dimension of the transportation plan involves its treatment of the relationship between city and suburbs. As suburbanization proceeds apace and office and commercial activity increasingly relocate to malls and office parks at the edge of the existing urban area, London is starting to experience problems of downtown crime and residential and commercial abandonment usually associated with much larger centres.³⁶ Potential conflicts between downtown revitalization and suburbanization were submerged in the choice of criteria for ranking capacity improvement options, whose ability to contribute to downtown redevelopment was assessed solely in terms of reduction in travel times to and from downtown. However, an approach to redevelopment that emphasizes quick and easy commuting to and from suburban locations is at least as likely to result in the hollowing out characteristic of many U.S. cities after working hours. As just one example, a recent review of redevelopment efforts in Boston's Roxbury district noted that: "The fear of crime is the greatest deterrent to shopping and reinvestment" and that: "Round-the-clock activity," which is a critical ingredient in crime prevention, "requires a strong residential base within the business district."³⁷

36. See e.g. Pat Currie, "Will downtown London ever get it together?" *London Free Press* Business Monday, April 17, 1995, pp. 8-9.

37. Jeff Minter, "Reinventing Roxbury's Dudley Square," *Urban Land* 54(1), January 1995, pp. 34-37. For a comprehensive treatment of the connections among mixed use, crime prevention and sustainable urban form see Irvin Waller, "Safer Cities: A Prerequisite for Sustainable Urban Development," paper presented to OECD Dublin Seminar, "Partnerships for People in Cities," October 20-21, 1993.

The proposed approach to transportation planning may not be consistent with creating and maintaining that residential base. Indeed, the livability and safety associated with a largely traffic-free urban core would be key factors in making living there more attractive. These are complex issues, and ones not easily resolved. My point here is simply that understanding of the complexities of downtown revitalization is hindered, rather than helped by the simplistic approach taken to London's transportation planning. Further, an approach to transportation planning explicitly organized around the concept of sustainability might assign special priority to support for downtown revitalization, because of the multiple social and environmental payoffs from increased densities and mixed uses, rather than treating it (as the study did) as just one economic criterion among five.

Conclusion: Urban Ecology and Urban Political Economy

The story so far suggests that planning as it is actually done at the municipal level has not been substantially affected by many years of governmental rhetoric about sustainability, and is even less concerned with issues of equity. The situation in London at the moment is more complex and marginally more hopeful. The TPR was accepted by London City Council in October 1994 but other aspects of the official plan development exercise continued, with more extensive public participation, under the rubric of "Vision '96". In November, 1995, city planning department staff released for public comment a complete package of proposed amendments to the Official Plan.³⁸

Perhaps because they were the result of a process that included numerous open public meetings, the proposed amendments are more progressive than the TPR. There is an explicit commitment to environmental responsibility, not only in a "goal statement" but also in proposals

38. *Proposed Vision '96 Official Plan Amendment*, first draft (London: City of London, November 1995).

to increase the number of designated Environmentally Significant Areas (ESAs), which "should be preserved in their natural state," from five to 20;³⁹ predictably, both the number and the size of the proposed ESAs are now being challenged by some affected landowners. The land use planning principle "that local actions can have consequences beyond our boundaries and for future generations" is given explicit recognition.⁴⁰ In direct contrast to the assumptions underlying the TPR, the draft amendments specifically refer to "intensification of land use in existing urban areas involving infill, re-development and the conversion of existing buildings" as a means of meeting a substantial component of future housing demand,⁴¹ and recognize that "some relief from normal zoning standards" may be necessary for such projects.⁴² The draft amendments also include such long overdue measures as a variety of initiatives to facilitate transit use; improved conditions for bicyclists; and the development of a pedestrian path system.

Encouragingly, the draft amendments mandate Council to investigate and implement traffic calming methods "where necessary to increase pedestrian safety and improve the overall quality of the urban environment,"⁴³ although they fail to specify what should count as a demonstration of necessity. Perhaps most significantly, downtown revitalization is explicitly identified as a goal of the Official Plan, and the draft amendments include commitments to promoting residential development as well as to a "safe and attractive pedestrian environment".⁴⁴ This focus on residential development is important not only because of its relation to livability and crime prevention, but also because Newman and Kenworthy identify central city residential

39. *Ibid.*, s. 15.6.1.

40. *Ibid.*, s. 2.3.1.

41. *Ibid.*, s. 2.5.7.

42. *Ibid.*, s. 3.2.3.

43. *Ibid.*, s. 18.2.16.

44. *Ibid.*, s. 2.12.

density as having a strong correlation with the amount of non-automotive travel. Employment density, on the other hand, has no such relation with choice of travel modes.⁴⁵

Were commitments like those just outlined to be respected in the actual case-by-case process of making planning decisions, an increasingly serious tension would emerge between those commitments and the priorities built into the TPR, which is incorporated into the proposed Official Plan by reference.⁴⁶ The TPR's priorities are both auto-oriented and centrifugal, organized around the assumption of a settlement pattern in which suburbanites drive to and from downtown for specific work and entertainment purposes and presupposing that the objective of planning should be to make that drive as quick and convenient as possible. The question of whether achieving a livable, mixed-use downtown area is compatible with transportation planning organized around speeding up the process of getting to downtown, but also the process of leaving it remains unanswered. It is also important to note that with the exception of a few laudable provisions dealing with making new developments more transit-friendly, the equity issues associated with organizing both transportation and land-use planning around automobile transport remain entirely unaddressed in the draft amendments. Neither was the TPR's modest target for increased transit use raised, although London's public transit authority has meanwhile been promoting a package of measures aimed at increasing ridership even over the short term.⁴⁷

Unfortunately, the transportation plan's priorities correspond closely to the distribution of political advantage within the land use decision making process. Auto-centred transportation strategies offer substantial benefits to relatively rich, well organized political clienteles, of which affluent commuters are only one among many. Road-building projects create jobs that are directly attributable to government expenditure decisions, which is why they are so consistently

45. Newman and Kenworthy, "Transport and urban form," pp. 262-263

46. *Vision '96*, s. 2.11.1.

47. Joe Ruscitti, "LTC proposals woo new riders," *London Free Press*, November 29, 1995, p. B1.

popular under the rubric of infrastructure. They are also an essential part of a land use policy that fuels the profits of the so-called land development industry and its symbionts in construction; this dynamic probably drove the behind-the-scenes politics of annexation in London.

Conversely, the political resources of most of the major losers from such a set of transportation and land use priorities are limited. The politically effective subset of the population normally encounters the negative consequences of roads only when they impinge directly on particular neighbourhoods or locally valued features of the natural environment, which may be why opposition to the transportation-related aspects of the official plan has been concentrated among suburbanites living in proximity to the proposed ring road corridor.⁴⁸ A profile of the population that is at risk of being without access to a car for economic reasons, or of being worst hit by having to keep a car running on a low and uncertain income, probably corresponds very closely to the demographic profile of political marginalization in general.

Over the short term opposition to all but the most visibly destructive road projects, in London and elsewhere, is likely to remain largely localized, and therefore vulnerable to accusations of NIMBYism and tactics of divide and conquer; broader programmatic opposition will be difficult to mobilize. Articulating a vision of more sustainable and equitable cities in ways that make a real difference to transportation priorities will depend on a clear and accessible vision of a city in which automobile-related land uses are far less important. Newman and Kenworthy provide a starting point by acknowledging the central role played by transportation as a determinant of urban form. As planning guidelines, they suggest restricting the road supply in a city to 2-3 km per capita; restricting the availability of central city parking, while providing good public transit access "and a series of central city policies ... that allows a central city to compete strongly with suburban centres where easy parking is available"; accepting average urban travel

48. Chip Martin, "Ring road plan riles residents of areas designated for route," *London Free Press*, January 11, 1996, p. B1.

speeds of 30 km/h as adequate; providing a rapid transit option that is substantially faster than average traffic speed; and extensive use of traffic calming to increase the attractiveness of walking and bicycling to work (and by extension of living closer to work).⁴⁹ As the land use component of "reurbanization," which is clearly a long range process, they suggest gradually increasing residential and employment densities, most particularly in the central city, by restricting development at the fringes and concentrating on redevelopment.⁵⁰

As we have seen, the transportation planners' assertion that Londoners would reject such a future is precarious, since this is not the kind of question they were asked. Even if they had been, however, statistics without context would probably have been less persuasive than concrete images of all kinds of neighbourhoods in a higher density, more livable city where less use is made of automobiles. Because few Canadians have direct experience of life in such a city, considerable imagination will be required to apply the techniques and real-world examples cited by Peter Calthorpe in *The Next American Metropolis*⁵¹ to the situation of cities like London in a way that makes an urban future consisting of something other than more of the same seem feasible as well as attractive.

Beyond imagination, coalitions will have to be forged as broadly as possible. This point is particularly important given the changing political climate in Ontario. The new Conservative government was elected in June, 1995 on the basis of a direct appeal to the resentments of the rich. Its "Common Sense" platform combined aggressive cuts in social spending with proposed tax cuts most of whose benefits would accrue to the most affluent Ontarians. Those resentments seemed to follow clearer than usual geographical divisions, at least in the Toronto area. The Conservatives were electorally weak in all but the most affluent areas of Metropolitan Toronto, but

49. Newman and Kenworthy, "Transport and urban form," pp. 265-266.

50. *Ibid.*, pp. 267-268.

51. Calthorpe, *The Next American Metropolis*.

extremely strong in the fast-growing suburbs and edge cities outside Metro's boundaries in what has become known as the Greater Toronto Area or GTA. According to some observers, the Conservatives' planned cutbacks in transfer payments to municipalities promise to be especially devastating to Metro Toronto.⁵² Along with the new government's announced intention to relax existing land use controls on low-density development, the cutbacks will lead municipalities throughout the province into an increasingly desperate competition for development as they try to expand their tax bases. Whether this strategy in fact generates net increases in revenue is debatable; recent evidence from case studies in the London region strongly suggests that it does not.⁵³

These developments suggest the potential emergence in Ontario of urban conflict organized U.S.-style, with downtowns and the city governments that have to service them pitted against suburbs and exurbs. In the near future the latter will usually win, on transportation issues as on much else, even though city governments may genuinely be trying to promote downtown revitalization with the limited range of policy instruments at their disposal.⁵⁴ Over the longer term there is at least some hope for change. Environmental awareness appears to be growing even among people who would not consider themselves environmentalists, although they often lack forums in which to discuss and evaluate transportation issues as citizens rather than just as transportation consumers. Perhaps a more important trend is that as a result of stagnating incomes, high levels of unemployment and corporate re-engineering in both public and private sectors, a growing proportion of the working-age population will never be substantially better off

52. John Barber, "How a city becomes nasty and brutal," *The Globe and Mail*, November 9, 1995, p. A12.

53. Gabriel Dekel, "The Fiscal Impact of Development: A Regional Perspective in Canada," *Land Use Policy* 11 (1994), pp. 128-141.

54. See e.g. Chip Martin, "Downtown London: Strong medicine claimed needed to turn it around," *London Free Press*, October 26, 1995, p. B1, B7.

than we are today. With that realization comes an entirely accurate perception of enhanced economic vulnerability.

When it becomes clear that moving to newly created suburbs and exurbs to escape the city and the declining quality of life it offers is an unaffordable dream, the balance of electoral power may slowly shift in favour of preserving existing neighbourhoods and of settlement patterns that avoid the financially draining need to buy the second car, or even the first. The Canadian Automobile Association recently estimated the annual cost of owning a typical new economy car at C\$ 7,700, assuming that it is kept for four years.⁵⁵ Buyers of used cars no doubt save on depreciation, but repair and maintenance costs will at least partly offset that saving. For households paying for their transportation expenses with before-tax dollars, the economic payoff from doing without at least one car is far higher than any wage or salary gains that can reasonably be anticipated. Thus there exists at least the theoretical prospect of building broad coalitions around the image of a city that is more densely populated, but also more environmentally responsible, more affordable and vastly more livable for its residents.

Acknowledgements

Gord Perks of Toronto's Better Transportation Coalition provided valuable background information. The coalition can be reached at 517 College Street, Suite 325, Toronto, Ontario M6G 4A2; phone (416) 961-5767; fax (416) 961-5850. Robert Gibson and Susan Holtz provided

55. Vic Parsons, "Annual cost of car ownership rises past \$7,700," *The Globe and Mail*, September 6, 1995, p. B24.

helpful comments on an earlier draft. All views expressed here are exclusively those of the author.

**Table I:
Goals and Objectives, Identification and Evaluation
of London, Ontario Roadway System Capacity Alternatives**

GOAL	OBJECTIVES
Economic environment: to achieve continued and sustainable economic development in the community	<ol style="list-style-type: none"> 1. To minimize total travel costs (equated here with number of vehicle hours of travel) 2. To minimize construction costs 3. To support designated growth area development demand (measured by with the number of peak hour trips accommodated) 4. To support continued downtown growth and development (measured by change in travel time from downtown) 5. To minimize property acquisition costs
Social and cultural environment: to protect and enhance neighbourhoods and communities	<ol style="list-style-type: none"> 6. To meet future auto travel demand 7. To provide a travel mode choice selection 8. To provide a safe transportation system (with safety defined only in terms of traffic accidents) 9. To minimize residential short-cutting impacts 10. To minimize proximity impacts 11. To minimize displacement of land use 12. To minimize residential noise impacts 13. To minimize transportation improvement visual impacts 14. To minimize community fragmentation 15. To provide good emergency vehicle access
Natural environment: to protect and enhance the natural environment	<ol style="list-style-type: none"> 16. To minimize wildlife impacts 17. To minimize vegetation impacts 18. To minimize wetland impacts 19. To minimize watercourse impacts 20. To minimize auto emission levels 21. To minimize energy consumption

Source: IMC Consulting Group, *London Transportation Plan Review: Final Report* (March 1994), 3.5-3.17.