

## BOOK REVIEWS

**DiMento, Joseph F.C. and C. Ellis.**

*Changing Lanes: Visions and Histories of Urban Freeways.*

Cambridge, MA: MIT Press, 2013.

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...perhaps no set of decisions had had more of an effect on America's cities than the development of a system of interstate highways using central cities as potential sites for portions of their placement. Massive highway infrastructure projects have reconfigured urban form, moved hundreds of thousands of people, cost billions of dollars of public funds, and supplanted many neighbourhoods. (p143)

In *Changing Lanes: Visions and Histories of Urban Freeways*, authors Joseph DiMento and Cliff Ellis explore the unique conditions that led to the construction of the U.S. interstate highway system. The story may be familiar, but the authors' portrayal of the players in this compelling drama is new: the highway engineers, planners, architects, landscape architects involved in building these major infrastructure projects and the communities that were instrumental in mitigating their devastating effects. The combination of DiMento's legal background and Ellis' planning expertise makes the book an informative read for anyone interested in urban development, transportation, public policy, or civic engagement.

The book traces the early beginnings of the interstate system, when controlled-access parkways were first built as beautiful scenic drives meant to access recreational areas and as rural connectors between cities. Collaboration between highway engineers, landscape architects, and architects contributed to the design of these roads, mostly built for recreational use during the 1920s and 1930s. This changed as competing visions of city form and development emerged and freeways began to enter urban areas, where there were no precedents for reconciling high-speed roads and dense, gridiron neighbourhoods near urban centres. Early experience and research on controlled-access roads was entirely based on market roads linking rural communities, so it's not surprising that state freeway engineers made so many mistakes when they attempted to apply these ideas to cities.

The book's real strength is its focus on the actors and their roles: they skillfully portray highway engineers as the most powerful actors in the freeway building process beginning in the 1940s, due to their simplified image of the city, their focus on modernizing the city for improved mobility and economic efficiency, and their institutional organization across public sector agencies. Highway engineers became the authoritative voice on freeway building because they had a clear vision of their designated mission, and stuck to technical problems without consideration of social or environmental concerns. City planners, on the other hand, struggled to define themselves as a profession, could not agree on a consistent image of the city, and

worked in a more limited role as advisors in public agencies: they “lacked the type of institution-building strength that the highways builders mastered early on.” (p14) Architects and landscape architects were also left out of the freeway design process during the 1940s and 1950s as they were less integrated into public agencies; their skills were only brought into multidisciplinary teams in the 1960s, once the aesthetic impacts of freeway infrastructure were realized.

The methodologies of these professions were also critical: although freeway engineers established a reputation as experts in moving large numbers of vehicles as efficiently as possible, even they did not possess the data required to make such major infrastructure decisions:

Highway engineers wanted accurate land-use forecasts to predict future vehicle trips, but not even major cities like Minneapolis and St. Paul had such information. The engineers made do with rough estimates provided by the region’s municipalities...Highway planners forged ahead and made decisions, acting on limited information. By initiating a new pattern of accessibility, they froze into place key components of the urban pattern. Later land-use and traffic studies were often used only to adjust the number of lanes or interchange spacing, rather than to reevaluate locations. (p75)

Significantly, no other profession had the ability to measure or forecast the impacts that freeways would have on the complex social and economic environment of urban areas, or the interaction between land use and transportation. While early state freeway engineers would try to work with existing city plans, many cities didn’t have adequate plans, so engineers proceeded without them—often without consulting local governments on critical decisions such as the size and route location of freeways and arterials.

The authors also do an excellent job of clarifying the important legal and regulatory changes that made it possible for the location, funding, consultation and analysis of freeways to be challenged by environmental groups, local citizens, and national organizations. Details on federal legislation on freeway construction and funding, environmental impacts, historic preservation over four decades are provided. In many cases these changes reflected a change in the way cities were perceived:

Across the nation, a major shift in perception was happening, from that of urban highway as tool of blight removal and city rejuvenation to that of urban highway as destroyer of the environment and of the social fabric of affected neighbourhoods. (p207)

The urban poor and ethnic minorities, who were not considered in early freeway decisions and disproportionately affected by their construction, began to voice their concerns.

Where freeways were stopped or modified, it was through grassroots

protest, litigation, and federal legislation, rather than technical arguments or academic research. (p107)

By focusing on three cities (Syracuse, Memphis, and Los Angeles), the authors illustrate how new laws and regulations allowed those concerned about displacement of communities, destruction of historic neighbourhoods, and environmental impacts to take legal action to stop freeway construction or mitigate their destructive effects.

Lecturers and professors seeking to integrate the book in teaching may be interested in this examination of events that spurred a profound crisis in the urban planning discipline. Chapter 6, which details these three cities and provides summaries of protests and legal challenges in many more metro areas, would be quite useful in a Masters level course on sustainable transportation or when discussing public participation methods with students. The chapter describes the different outcomes that resulted from local residents' level of knowledge about the issue, ability to organize, and ties to state or national groups; the relationship between the local and state authorities; and the timing of the decision-making process in relation to important regulatory changes and the shift in perception on the impacts of freeways in urban areas. Chapter 5 details important legal, social, and regulatory events including a timeline in Table 5.1, and could be used in a planning law course. The Conclusion and Epilogue, which succinctly compares these factors and provides examples of cities removing their postwar freeway infrastructure and replacing them with redesigned boulevards, parks, and public transit infrastructure, could be used in a course on urban development, urban design, or land use-transportation.

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