Transportation and Open Space

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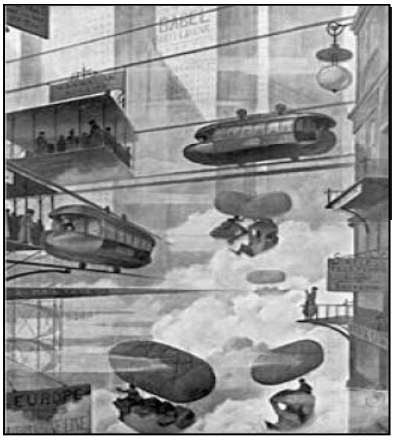


Future transportation imagined by Fred Strothman in 1900

What mass and personal modes of transportation might we be using in 20 and 100 years and what effects might this have on our public rights-of-ways and open space opportunities?

Two topics were studied in order to provide a response to the research question: the past and current trends in the transportation profession and the possible future modes of transportation.

The primary objectives of transportation planning are to facilitate access to and participation in activities, but the means to achieve these objectives has begun to radically change. A more holistic approach has now been undertaken to incorporate more than just the movement of people. Transportation planners will have to avoid exclusivity by ensuring that all social groups benefit from decisions, will allow for broader objectives to be met (environmental issues), the quality of life will be maintained and enhanced, and the project will introduce greater livability.

In the 20th century, transportation professionals were mainly concerned with moving people and goods in the most efficient manner. Transportation was strictly about increasing road capacity in order to fight congestion and followed the belief "transportation as it nothing else mattered." In the 21st century, there is evidence that the culture of transportation planning and engineering is evolving to focus on integrating transportation solutions with land use policies. Thus, shifting the behavior and changing the culture of the profession to create streets and roadways that help improve the quality of life for all users of the right-of-way and "understanding what is important about the land."

Transportation eras usually last between 50-100 years (example: canals to railroads) and then something new would come along and create a dominant transportation system. Ever since the Wright Brothers and the combustion engine 100 years ago, nothing evolutionary has occurred in the transportation field. The longevity of the automobile and air travel has dominated transportation modes, and there is question as to what will become the next revolutionary trend for transportation in the 21st century.

Quotations reflecting the changing culture of the transportation profession:

"Invest in transportation systems that promote high-density, compact living while preserving open space in order to improve the quality of life"

"Sense of place comes from the design of the public realm: streets and sidewalks belong to the entire community, not just automobiles"

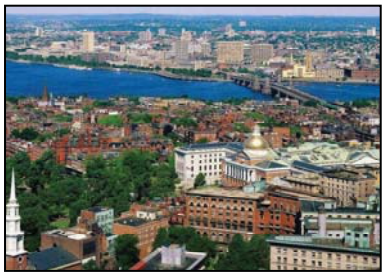
Shifting the Culture – Approaches and Case Studies:

Transportation Demand Management (Education)
Transportation Systems Management
Intelligent Transportation Systems
Integration of multi-modal transportation strategies
Placemaking (PPS)
Context Sensitive Solutions (PPS)
Integration of land use and transportation planning (Smart Growth)
"Road Diets"

Future Land Use Decisions:

Sprawl?

OR



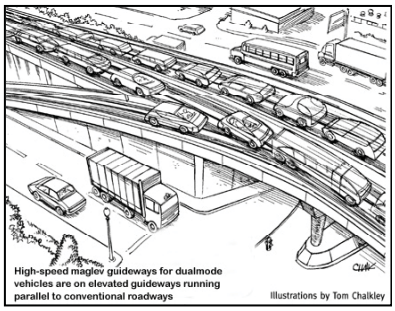
High density, compact communities?

Possible Future Modes of Transportation

SoloTrek TM Exo-Skeletor Flying Vehicle

"SUV with Wings" – inside of the Adam Aircraft's A500 Microjet

Japan's MLX01 MagLev Train



Dualmode Transportation System

Possible Future Modes of Transportation and their Implications on Open Space:

Personal Modes – hybrid automobiles (promotion of low density development in an environmentally-friendly way), dualmode transportation systems (creation of guideways – less open space), flying vehicles (air taxis and/or individual vessels) (promotion of low density development – less open space)
Mass Modes – high-speed trains and magnetic levitation trains (possible TOD development – open space)

Challenges:

Behavior change, a shift away from auto dependency, is necessary - how to argue convincingly for cars to not be used and to have people actually accept this plea
Land Use policies that allow for low density development
Public Transportation Investments/Funding

Implementation (Policy):

Integrated land use and development decisions with transportation solutions
Creation of pedestrian only streets (open space)
Street Design Guidelines to promote different forms of open space dependent upon street type
Coordination between all forms of transportation to promote transportation choices

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