The Roadside Forest and Community Image

From a highway or freeway, roadside roads are some of the earliest introductions to communities. Drivers conclude places to stop, shop or return. Does the view from the road influence these decisions?

Environmental cues help form judgments about new situations or people. Certain visual characteristics create impressions about places. Another University of Washington study attempted to test the judgments that people make about unfamiliar places based on freeway or highway appearance.

Social scientists often study the relationships of people to places. The form and character of a place can shape moods, attitudes, and responses of residents. Recently, communities are considering the effects of character of place on residents and visitors. Business communities, in particular, take an interest in the image that the community projects to consumers.

A mail survey of licensed drivers in Washington State evaluated the perceptions of place that people sometimes associate with roadside landscape. Study participants toured one of two community settings (use larger prints in previous pages) and rated a series of statements about the place.

Consumer Appeal: One set of statements contained information about merchants, products, and services. Based on empirical analysis, three categories of response patterns arise:

1. Business Quality
2. Appealing Character
3. Shopping Convenience

Furthermore, mean ratings on each category differed significantly (p<.001), with the community images containing more green space having higher values. Ratings of Appealing Character were 50% higher for the green setting, while sit-down dinners or floral bouquets were assigned 10% higher prices. For instance, sports shoes were priced 7% higher in the green setting; while six-dinner dinners or floral bouquets were assigned 15% higher prices.

Washington Community Forestry Council

Every year Americans spend more time in their cars. In recent decades, trips and mileage have increased by up to 85 percent. Today Americans travel 2.3 billion miles daily on urban freeways and highways.

They pass slices of landscape — called freeway roadsides — which are beyond the white lines. This issue of TreeLink examines the peace of mind and other benefits that these roadsides and rest areas offer Americans alone — offer stressed motorists.

The View from the Road

The Urban Forest and Our Freeways

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Product Pricing

Healthcare services may help drivers distinguish businesses within a stream of complex roadside information. Furthermore, communities shouldn’t ignore the messages or cues from trees. A community forest that greets potential visitors will provide many benefits. Trees and green space may positively influence both consumers’ and merchants’ agreements for this category.

Does the view from the road influence people’s perceptions of place? People were asked to rate a list of statements about traffic interaction in the simulated setting.

Two statistical categories were identified: Civic Commerce and Community Health. Traffic was economic condition and crime rate indicated a higher level of agreement for this category. The message was associated with the green community. Product Pricing: Consumers tend to use consumers to value things that cannot be bought and sold. In this study, people were asked to specify what they would pay for a collection of goods and services. Resulting pricing patterns are also used by economists to value things that cannot be bought and sold. In this study, people were asked to specify what they would pay for a collection of goods and services. Resulting pricing patterns are also used by economists to value things that cannot be bought and sold.

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Transportation Systems — Quantity and Quality
Historically, the study of transportation has been the domain of engineers, who are primarily concerned with the physical design and construction of transportation systems. They have been joined by the legal and economic professions, which address issues such as the pricing and regulation of transportation services. More recently social scientists—sociologists, geographers, psychologists, and marketing specialists—have examined transportation topics.

Transportation issues span many aspects of contemporary life, including land use, employment, pollution, economics, social stability and the overall quality of life. The quantity and character of freeway corridors may have significant effects on driving behavior and also impact other aspects of daily life. As transportation issues become more complex, social scientists are discovering opportunities and strategies that are compatible with individuals, neighborhoods and entire communities.

The Roadside and Driver Stress

Scientists have contributed to a better understanding of driving and stress. Many state and local highway systems are being used at full capacity. As Americans spend more time on the road and face greater traffic congestion each year, driving stress becomes a public health issue.

Scientists have studied how human bodies and minds cope with stressful situations, including driving conditions. “Fight or flight” is our coping response to high threat stressors. Other low-level, constant stressors (such as crowding or work pressure) trigger less perceptible responses. Psychologically, people respond to stress on many levels—cardiovascular, skeletal-muscular and neuroendocrine—by mobilizing the body and mind to deal with demanding situations. This mobilization of the body and mind can lead to fatigue, if the stress is long term. Psychologically, stress causes feelings of fear, rage or retardation.

Psychological and physiological stress responses to driving situations are different from many everyday life stressors. Psychological stress responses to driving conditions depend on road and traffic conditions. Changes in mind and body are documented for all driving experiences. For instance, heart rate variability and blood pressure increase when a person is driving when compared to non-active situations. Demanding driving conditions, such as traffic jams, stop and go traffic, tend to increase stress response. Commuting may be one of the most stressful experiences of urban life. Increased blood pressure is associated with longer or more difficult commutes.

Low level job satisfaction, higher illness rates, depression and lower performance on various cognitive tasks also are related to longer or more difficult commutes.

While the stresses of driving and commuting are documented, surprisingly few studies have studied how these stresses affect visual quality. This is important because many urban freeways are commercial corridors.

One recent study by a team of transportation and public health researchers was designed to examine the effects of the roadside landscape on stress response. Researchers studied the relationship between visual quality and stress response. The study was conducted as part of the larger framework of a transportation social science project. The project, called Transportation Systems — Quantity and Quality, was supported by the Federal Highway Administration.

The View from the Road | The Urban Forest and Our Freeways

Roadside Urban Forest

Visual Quality and the Roadside Environment

A “readable” roadside environment is another focus area of transportation social science. Federal transportation agencies have developed methods for evaluating roadside scenery, though more research is needed to determine exactly how applications are even related to urban areas. The project was designed to examine the relationship between visual quality and stress response.

Roadside Preferences: An average rating was calculated for all 36 scenes. The worst and highest mean ratings (Figure 1) show that stress aftereffects include substance abuse, decline in frustration tolerance and low performance on cognitive tasks also are related to longer or more difficult commutes.

Visual Quality and Stress

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visual distractions.

Drivers viewing built-up, strip mall environments were slower than those viewing rural or wildland areas. In this study business people and drivers varied in their judgments of visual quality. Freeway frontage areas should consider incorporating shared preferences into their businesses. Strategically placed trees and vegetation may draw attention to signs or products, without creating dangerous visual distractions.

What can the view from the road tell us about a community? COMMUNITY (below left): little planning for landscape or green space. COMMUNITY 2 (below right): Planning for quality landscape and green space has occurred.