Trees in Business Districts
The Urban Forest and Retail Environments

Research Review

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University of Washington
kwolf@u.washington.edu
• Research Settings:
  big city - neighborhood districts
  mid size - Athens CBD
  small city - Main Streets

Sponsors:
NUCFAC - USDA Forest Service
Georgia Forestry Commission
Athens/Clarke County Consolidated Govt
National Scenic Byways Research Center
many local partners!
Research Question:
What is the response of visitors and/or shoppers to trees in CBD streetscapes?

Measures:
Visual preference
Place perceptions
Patronage behavior
Product pricing
Human Dimensions of Urban Forestry and Urban Greening

Nature and Consumer Environments
Research about how the urban forest influences business district visitors.

Trees and Transportation
Studies on the value of having quality landscapes in urban roadsides.

Civic Ecology
Studies of human behaviors and benefits when people are active in the environment.

International Urban Greening
Scientific explorations of people and urban nature in other nations.

Urban Forestry and Human Benefits
More resources, studies and links...

Research Director
Kathleen L. Wolf, Ph.D.
Survey on Nature and Commerce in the Downtown Athens Business District

Spring 2002

Sponsored by: USDA Forest Service, Georgia Forestry Commission, Athens-Clarke County, Athens Downtown Development Authority

- Methods -
  survey research
  mailing to random sample of resident addresses
  on-street sampling
-Methods -
Athens, GA

person-to-person contact

random locations & times

UGA students

365 respondents
Results:
Visual Preference

Athens, GA - 100K population
Mean Scene Ratings

lowest rated scene
mean 1.34

Scale:
1 = not at all
5 = like very much

20 images

highest rated scene
mean 4.67
Athens, GA Streetscape

1984
College Street

2004
Three Preference Categories

descriptions & mean ratings

Category 1:
Dominant Buildings
mean: 1.98

Category 2:
Buffered Buildings
Mean 3.13

Category 3:
Green Streets
mean: 4.00
Results:
Visual Preference

Small Cities - 10-20,000 population
Image Categories (sorted by ratings)

Pocket Parks
mean 3.72
(highest)

Full Canopy
mean 3.63

Scale: 1 = not at all, 5 = like very much, 26 images
Enclosed Sidewalk 3.32

Intermittent Trees 2.78
No Trees
mean 1.65
(lowest)
(high - 3.72)
Trees & Visual Quality

Visual Preferences

• lower without trees
  higher with big trees
• little difference in response based on visitor demographics
Image Preference Categories - Vegetation Content

- no veg
- naturalistic
- high trees
- low trees
- formal

Mean Preference Ratings

- Consumers
- Biz People
Tree hate crimes! Positive message?
Visibility = customer appeal?
“low maintenance”
Results:
Visitor Patronage

Mid size city - Athens, GA
Part Three

The streets and sidewalks of Athens are being upgraded and improved. Different design options have been proposed. Imagine that in time most of the business district looks like these images. Please answer the questions below.

If the entire district looked like this, how often would you visit the Athens business district per month?

- less than once a month
- about once a week
- once a month
- 2-3 times per month
- 6 to 7 times per month
- twice a week or more
- 4 to 5 times a month
- 8 or more times per month

Would you spend more or less time during your visits to the district if it looked like this? Please check "more" or "less." Then estimate how much time on average you think you would spend doing any of the following activities during visits to this proposed version of the district.

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Average Time Spent:

- 0 15 30 60 90 2 hours
- more

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1. Place Perceptions

- Amenity and Comfort
- Interaction with Merchants
- Quality of Products
- Maintenance and Upkeep

*trees as cues of caring & quality*
2. Patronage Behavior

- travel time, travel distance
- duration of visits, frequency of visits
- willingness to pay for parking

increased market base & trade area
Visitor Patronage

- both visit frequency & visit length positively affected by trees
- existing forest condition is a positive experience
Patronage Behavior

Time You Would Spend in this Place?

% response

- No Trees
- Trees
- Trees/Access.

up to 30 min 30 to 59 min 1-2 hours > 2 hours
time period

Similar response patterns for other behaviors:
- time of travel
- distance of travel
- how often would return to place
Results: Product Pricing

Large cities - all U.S.A.
Product Pricing

- higher willingness to pay for all types of goods
- higher in districts with trees
Product Pricing

Goods Categories

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<td>shopping goods</td>
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- No Trees
- Trees
- Trees/Access.
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   - Amenity and Comfort
   - Interaction with Merchants
   - Quality of Products
   - Maintenance and Upkeep

2. Patronage Behavior
   - travel time, travel distance
   - duration & frequency of visits
   - willingness to pay for parking

3. Product Pricing
   - higher willingness to pay for all types of goods
   - higher in districts with trees - 9-12%
retail & place marketing

“Companies stage an experience when they engage customers in a memorable way.”
Results Discussion

- Trees make a retail “experience”
- Place Marketing
  - More expensive to recruit new customer than to retain established customer
  - Trust, quality, loyalty
- Trees & District Image
  - Product and business quality
  - Higher price willingness-to-pay
Trees and Safety
Real or Perceived Risk in Cities?
Problem!

 وأضاف Drivers run off the road and crash into trees
Class 1: Least Risk

Run-off-the-road accidents
auto damage & driver injury
Class 3 Risk

Class 5 Risk
Distribution of Accidents

Total 2002 motor vehicle traffic crashes: 6,316,000
Overall Accident Stats

- car vs. car collisions - 78.6%
- rollovers - 4%
- collisions with poles or signs - 2.1%
- collisions with trees - 1.9% (120,000 per year)

U.S. annual total vehicle trips: 233 billion or about (6 trips per day per household)

= tree crash in 1 per 1.9 million trips
Urban/Rural Distribution

2001 Traffic Data

- Miles Traveled
- Crashes
NO SIR, I WAS NOT TALKING ON MY CELL PHONE....
I WAS WATCHING A T.V. SHOW ON MY IPOD....
Design Details

Trees in Retail Business Districts
TREES ARE GOOD FOR BUSINESS

Info@pnwisa.org
Bell Town District, Seattle, WA
Double row trees,
Conifer plantings
Edmonds, Washington
Edmonds
in Bloom
Seaside, Oregon
Claremont, CA
Athens, GA Streetscape

College Street

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