Principles for Measuring and Achieving Livability in Planning and Design Decisions

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Austin, TX
September 7, 2011
Wasatch Choice 2040

5 + Million Dollar Hud Grant
To Understand How to Implement Regional Visions

Metropolitan Research Center – University of Utah
Envision Utah
Salt Lake County
Wasatch Front Regional Council
Fregonese Associates
ET+ Scenario Builder:

- Quickly paint scenarios using financially feasible building blocks
- Compare multiple scenarios across variety of indicators
- Track progress in real-time
- Developing 18 “Apps”
  - Complete and Livable Streets
- Solving Transportation Problems With non-transportation solutions
- “It’s The Housing, My Friend”
Session Overview

- Livability Discourse Overview
- Livable Streets Primer
- Issues
- Principles for Measuring and Achieving Livability
- Toward a Definition of Livability to Guide Planning Decisions
HUD/EPA USDOT Livability Principles/Objectives

- Provide more transportation choices
- Promote equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate and leverage federal policies and investment
- Value communities and neighborhoods

The Honorable Ray Lahood, Secretary Of Transportation
Before The Committee On Banking, Housing, And Urban Affairs, U.S. Senate
June 16, 2009
Livable Streets Primer
What is the location of your friends and acquaintances?

- **Light vs. Heavy:**
  - 3 x Local Friends
  - 2 x Acquaintances

**FIGURE 3.**
San Francisco. Neighboring and visiting on three streets: lines show where people said they had friends or acquaintances. Dots show where people are said to gather.
What is the extent of your home territory?
What is the extent of your home territory?

Additional Findings:

↑ Traffic
↓ Neighborhood pride
↓ Property values
Ecology of the Street
Street: At Peace In Conflict In Retreat

Source: Livable Streets
“It was perhaps the most influential urban design books of its time. Prior to Livable Streets, streets were looked upon as ‘Sewers for cars’ and traffic was not yet seen to have broader impacts on our psychology, our socializing, or our sense of comfort around streets. After Livable Streets, streets were appreciated more fully: as places where people lived; as potential places to build important social ties; and as places for children to play.”

UC Professor Randolph Hester
Issues: Current Political Discourse

- “Livability should be defined by each individual community”
  - People like to drive fast without congestion—Economic Competitiveness
  - Many would consider this “Livable”
- By extension then, should people from one community be empowered to drive fast through other communities to avoid congestion?
How do we prioritize between competing principles/objectives?

Economic Competitiveness – Free Flow
Auto-mobility

Vs.

Supporting existing communities
Support existing communities

What happens when a community has been disenfranchised, sometimes by the transportation system itself?
Powers of Observation:
Striving to Overcome the Alienating Forces of Auto-Domination

we need to recognize that we are sometime trying to measure the “unmeasurable”.
Striving to Overcome the Alienating Forces of Auto-Domination
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Striving to Overcome the Alienating Forces of Auto-Domination
we need to recognize that we are sometime trying to measure the unmeasurable.
CONGRATGS!
YOU Finished
the world's best
hop-scotch!

Made by:
99/100

(Al) Jorry
+Nuon M.1
Illustrations of How People Traveling by Different Modes Experience The Environment Differently

- *Retrofitting Auto-Suburbia: A Community Guide to Overcoming Auto-Domination*
- *Livable Streets for Schoolchildren*
When driven everywhere, children become cognitively disconnected from their environment.

“Livable Streets for Schoolchildren”
By Bruce Appleyard
www.bikewalk.org
The View From **Outside** a Car

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I like **my neighborhood** because I have lots of friends, and because I can play there when ever I want. I like every thing in my neighborhood and I dis like nothing in my neighborhood and I also ride my bike every where or I walk.

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Child from Gregory Garden Neighborhood
Satisfaction: Values, Expectations, Adaptation
Livable Streets Findings: What people want on their streets

Percentage Saying "Very Important"

- Appearance
  - Clean, Unlittered
  - Attractive Appearance
  - Greenery
  - Near Public Transport
  - Walking Conditions
  - Close to Shops
  - Close to Parks

- Accessibility
  - Easy for Car
    - Peaceful & Quiet
    - Safe from Traffic
    - Sociable, Friendly
    - Good for Children

- Multi-Modal Mobility
  - Traffic
  - Neighbors/Children

- Convenience
  - Multi-Modal Mobility
  - Auto-Mobility

Bruce Appleyard, AICP
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Cars Encroach and Drive Fast

When Curb Radius Is Too Large?…
Contributions of Livable Streets

- Established framework to evaluate impacts of traffic on people & communities
  - Introduced the phrase “Ecology of the Street”
  - Changed focus from driver-ped conflict to driver vs. resident conflict
  - Articulated the “roles” people play and the unequal distribution of power

The Use of Streets: A Reassessment and Tribute to Donald Appleyard
EDUARDO VASCONCELLOS
Contributions of Livable Streets

The Promise of Our Streets:
Argued for a
“National Livable Streets Program”
The Complete Streets Movement

Processes Before Prescriptions:
Context Sensitive Solutions (CSS)
Livable Streets: Pioneered Complete Streets Hierarchy*

Important for lowering GHG as often about a quarter of all trips are less than or equal to one mile.
http://www.streetfilms.org/revisiting-donald-appleyards-livable-streets/

Played over 10,000 times after only three months! (by January 2011)
Closing Remarks on Achieving Livability: Re-connecting, and Re-establishing Community

- As written in the pages of this book, people adapt to poor conditions. And thus to achieve *livability* we will often need to uncover where community ties have been undermined, or even displaced. And then help work toward re-establishing these social connections.
Closing Remarks on Achieving Livability: Observing, Revealing and Assisting

Furthermore, to achieve livability we must be ready to research and observe people’s revealed behavior, uncovering aspects of people’s lives that could be better. In sum we will need to strive to reflect the actual conditions of urban ecologies and experiences—giving people the information and images necessary for them to understand what is wrong and unlivable, and what is necessary to make things better.
Lessons Learned from Livable Streets: Principles for Measuring/Achieving Livability

1. *People Adapt to Poor Conditions*
   - The poor, the disenfranchised. Disconnected.

   - *The Need for Advocacy and Inclusion: Understanding the Adaptation and Retreat from Poor Conditions*
Lessons Learned from Livable Streets/
Principles for Measuring/Achieving Livability

- It is about people
  - “It’s about moving people” not about moving “tin cans” or “steel boxes”

Achieving Livability:
- Priority placed on: out-of-vehicle travellers
  (a vulnerable human state)
  - The “Out-Car-Experience”
  - Humanist approach
Principles for Measuring/Achieving Livability

- Analysis of observed behavior
  - Reflecting this back to people
- Cost internalization of Livability impacts
Livability Trip Profiles

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Livability Trip Profiles
Street: At Peace In Conflict In Retreat

Source: Livable Streets
Livability Trip Profiles

- Cost internalization of Livability impacts
- Livability Trip Profiles
Achieving LIVABILITY in Transportation Needs some of the following:

- Human Scale priority
- Comprehensive and equitable Inclusivity
  - Cost internalization of Livability impacts
  - Livability Trip Profiles
- Exchange Efficiency
  - Social Networking and knowledge transfer
  - Access to opportunity
- Analysis of observed behavior
  - Reflecting this back to people
Toward a Definition of Livability to Guide Planning Decisions

The Brundtland Report’s overarching definition of sustainable development: “meet the needs of the present generation, without compromising the ability of future generations to meet their own needs.”
Toward a Definition of Livability to Guide Planning Decisions

- **Quality of Life**
  - Placing a priority on society’s disadvantaged and most vulnerable.

- **Public Realm, but Mediating the Power Play Therein.**

- **Balanced Optimization of Society’s Collective Quality of Life**
Toward a Definition of Livability

- *Livability* is a balanced optimization of the collective quality of the “human experience”
  - in and around public spaces,
  - placing a priority on the disadvantaged and most vulnerable.

One’s pursuit of Livability Should Not Unduly Detract from a Region/Community’s Collective Quality of Life
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The Dual Perspective For Measuring and Achieving Livability
Thank You!
Street Vision

"We should raise our sights for the moment. What could a residential street — a street on which our children are brought up, adults live, and old people spend their last days — what could such a street be like?"

We must ask the following:

- Who is missing? Who is being excluded?

- Achieving Livability means to:
  - actively reach out and include others.
  - recognize that people will adapt to poor conditions
Re-imagining and Re-envisioning the Promise of our Streets

we need to help people re-imagine and re-envision the promise of our city’s most accessible public spaces—
the places where we can most easily gather and socialize to share knowledge, support, and to learn about the world;
where we can choose to walk or bicycle to save the environment and improve both our physical and creative health; and finally the places where we can freely find rest, joy and rejuvenation—our streets.

Bruce Appleyard, PhD
Three Pillars Model

- Lutzkendorf and Lorenz (2005)
Future Work

Accessibility Planning and Design

Environment

Economy

Equity

Comprehensive Sustainability

Ecological Economy

Context
Place
Identity
Health
Spirituality

Equity
Access
To Opportunity
Affordability

Stewardship/Demand Management
Best Practices and Institutional Reform

Livability/Vitality

Place
Identity
Accessibility Planning and Design
Auto-Mobility Paradigm Then
Berkeley - Circa 1975
New Spatial Unit of Analysis

- To more equitably handle these two perspectives
- Individualized, detailed information
- Frameworks created help manage “information overload”

The Individual Access Corridor (IAC) captures details of the urban environment between origins and destinations – important to out-of-vehicle travelers.

Conventional spatial units of analysis - Zones around the origins and destinations
The IAC in Action:
• Estimated paths for thousands of survey respondents.
• Created analytical frameworks
• Broadens the prevailing research paradigm.
Background: Conventional Methods Use Zonal Aggregation
# Background: Methodological Progression

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<thead>
<tr>
<th>Analytical Framework</th>
<th>Conventional, 4-Step Modeling</th>
<th>D-Variables of the Built Environment</th>
<th>IAC Analysis</th>
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<tbody>
<tr>
<td><strong>Spatial Unit of Analysis</strong></td>
<td>Traffic Analysis Zones (TAZs)</td>
<td>TAZs or ½ mile radii</td>
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<tr>
<td><strong>Perspective</strong></td>
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Creating Livable & Complete Streets

I. Getting Across the Street
II. Getting Along the Street
III. Placemaking
IV. Traffic Calming
Livable Streets are Comfortable Places For People and Pets

Rijsvijk, The Netherlands
Source: Hamilton-Baille Associates