Coming Full Circle:  
The urban street evolution –from vulnerable users to complete streets  

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Complete Streets Forum  
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April 29, 2015
Evolution:
• Shared space (chaotic)
• Separate but equal
• Separation to enhance vehicular flow
• Safety to occupants of the vehicle
• Shared space (civil)
Persistent Problem

Trolley
About Which we Have a Lot of Knowledge
And Good Vocabulary
Traditional Solutions

- Separation
- Command and Control (make people, in and out of cars, behave better)
- Build systems that forgive errors (effective for people encased in their automobiles)
- Three Es of traffic safety
  - Education
  - Enforcement
  - Engineering
Separate but Equal (Radburn, NJ)

History of unintended consequences

- Introduced the concept of a cul-de-sac
- Context begged for higher speed facilities to access the site
Separate (Not Equal)
Or Not at All: The Forgotten Pedestrian
Command and Control
Will You Please Behave?
Adapt the system to the people? 
or
Make the people adapt to the system?
desire lines

Dortmund
Minimum curve radii are needed for safety.

Minimum radii selected were based on the assumption that vehicle occupants should not feel any effects (centrifugal force) of the turning vehicle along those radii.

The larger the radius, the faster the turning vehicle can get off the road and fewer through-movement vehicles need to slow.

Adequate driveway width can help turning vehicles get off the road with a greater speed and less encroachment into oncoming driveway traffic.
Corollary: History of Pedestrian and Bicycle Safety

Deterioration = History of Unintended Consequences

Adequate driveway width can help turning vehicles

off the road with a greater speed and less chance

into oncoming driveway traffic.
Corollary: History of Pedestrian and Bicycle Safety
Deterioration = malign neglect

Right Turn on Red: The Forgotten Pedestrian and Cyclist
Beliefs and Their Origins

No increased danger due to vehicles turning right on red.

Misinterpreted statistical conclusion based on small sample studies.

Pedestrian volume signal warrant shall not be applied within 300ft of a signal controlling the street pedestrians wish to cross. Unless the proposed signal will not restrict the progressive movement of traffic.

Manual on Uniform Traffic Control Devices

“A safe roadway is one in which none of the driver-vehicle-roadway interactions approaches the critical level at any point along its length.” AASHTO 1974
DO NOT CROSS HERE
USE CROSSWALK

TO CROSS
PUSH BUTTON

START CROSSING
(Watch For Vehicles)

DON'T CROSS
STEADY
Clearly, You Need to Be Protected From Yourself

- Crash avoidance features of roads
  - Clear zones ("for safe use by errant vehicles")
  - Breakaway Devices

- Crash avoidance features of cars
  - forward collision warning,
  - autobrake,
  - lane departure warning,
  - lane departure prevention,
  - adaptive headlights and
  - blind spot detection
HOW DO WE REACH IT?
How Did We Get From Here to Here?

Peoria, Il
Peoria Policies

- “Regulate use along arterial streets and highways to protect their through-traffic function and capacity”
  - City of Peoria Zoning Ordinance Article 1, Section 1.2.b.(4)
- “Wide traffic lanes are used to maintain speeds of 30-45 miles per hour”
  - City of Peoria Subdivision Regulation, Article III, Section 3-104.Q.2: Definition of Arterials
- “Access to local land use should be limited to allow more efficient traffic flow…”
- “The primary function is to provide through movement of traffic”
  - City of Peoria Subdivision Regulation, Article III, Section 3-104.Q.2: Definition of Arterials
Can We Reverse the Process?

Santa Monica, CA
Getting From

Here

to

Here?
And Here
Getting From

Here

South Grand Blvd
St. Louis, MO

to

Here?
Results

- Annual tax revenue + 14% first year
- Expected crashes -85%
- Minimum expected savings due to crash reduction $3M
- Expected fatality from crash 100% before 25% after
Safer Streets, Stronger Economies

- Edgewater Drive (Orlando)
  Real estate + 80%; +70% w/in ½ mile of the corridor

- Uptown district (Normal, IL)
  $160M in private investment

- Euclid Avenue (Cleveland)
  $5.8B along Healthline Corridor
First Have to Combat This

"Look out!" squawked Mrs. Mallard, all of a dither. "You'll get run over!" And when she got her breath she added: "This is no place for babies, with all those horrid things rushing about. We'll have to look somewhere else."
Traditional Solutions Redux

- JUDICIOUS Separation
- Command and Control (make people, in and out of cars, behave better)
- Build systems that forgive errors FOR PEDESTRIANS, CYCLISTS AND OTHER USERS
- Three [BETTER] Es of traffic safety
  - Education
  - Enforcement
  - Engineering

  Education ——> culturE
  Enforcement ——> self-Enforcement
  Engineering ——> dEsign
Making Space for Innovative Thinking

90% of the solution is defining the problem

- Victim
- Perpetrator
- When/Where/How

Pedestrian safety ➔ Motorist safety

Motorist safety ➔ Pedestrian safety
TRY
Thank You!

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