Inserting streetcars in pedestrian areas: French examples

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Key Presentation Take Aways

• The French “Streets for all” concept
• Why make streetcars cross pedestrian zones!
• Key factors for a good insertion
• Relevant locations for cohabitation between streetcars & pedestrians
• Advantages & limits
The French “Streets for all” concept

- a more balanced use of public space...
  - Promotion of active modes
  - Reduction of car’s prominence

- a main regulatory tool:
  The “street use code” process *(start 2006)*
The French “Streets for all” concept

Synthesis of running conditions in towns

<table>
<thead>
<tr>
<th>Status of the zone or road</th>
<th>pedestrian area</th>
<th>pedestrian-priority zone</th>
<th>30 zone</th>
<th>urban area</th>
<th>70 section</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed limit</strong></td>
<td>Walking pace</td>
<td>20 km/h</td>
<td>30 km/h</td>
<td>50 km/h</td>
<td>70 km/h</td>
</tr>
<tr>
<td>Balance between</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>local life / traffic function</td>
<td>Local Life</td>
<td>Traffic</td>
<td>Local Life</td>
<td>Traffic</td>
<td>Local Life</td>
</tr>
<tr>
<td>% of the road network</td>
<td>0 % - 10 %</td>
<td>2 % - 15 %</td>
<td>60 % - 90 %</td>
<td>10 % - 40 %</td>
<td>0 % - 5 %</td>
</tr>
<tr>
<td>desired in the long term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Decree 2008-754, modifying the Road code (30/08/2004)

- Pedestrian priority zone: <“meeting zone”> no particular limitation of traffic, but sharing without any segregation and avoid transit (pass through)
- Pedestrian area: (strong) limitation of cars
- In both cases:
  - Cyclists allowed
  - Public transport allowed, as they participate in serving the zone
Why make streetcars cross pedestrian zones!

In the meantime, France re-discovers streetcars...

Existing tramway systems in 2015
Why make streetcars cross pedestrian zones!

Several causes, in relation with those 2 trends:
• radial structure of most of tram networks, serving downtown
  – streetcars go and meet existing pedestrian areas
• extension of pedestrian areas in hearts of towns
  – pedestrians areas cover existing tramway paths
• insertion of tramways in (more & more) dense urban context
  – remove some functions in narrow streets:
  car now is the logical choice!

but not always in the past... =>
Why make streetcars cross pedestrian zones!

Tramway lines in downtown areas

- Skirt around or cross pedestrian zones?

A technical and political choice!

- Level of service
- Impact on local life
- Residents’ wishes
- Symbolic locations
Key factors for a good insertion

The regulatory context: tramway and road rules
• *tram* has **not to respect general rules** of the “Road code”
  - streetcars do **not** have do yield priority to pedestrians
  - all users, including pedestrians **have to let a free path** for up-coming tramways

→ **adapt the layout to make the tram perceptible**

[Diagram: Materialization of the Gauge limit (« GLO »)]

Grenoble

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Key factors for a good insertion

→ adapt the layout to make the tram perceptible
  → choice of contrasting materials
    → borders and whole surface of the GLO

→ facilitate pedestrians’ life
  (must easily walk/get out of the GLO)
  → no too “sealed” separating device
  → comfortable walking facilities out of GLO
    → sufficient width
    → remove obstacles
Key factors for a good insertion

- Adapt the operating conditions and ways
  reduction of speed and high concentration of drivers...
  to be balanced by
  - limited length of such sections
  - simplification of their functioning
    (pure pedestrian areas are preferable to “meeting zones”)
  - right of way and efficient priority management out of these zones

- Handle an active traffic management in and around pedestrian zones
  - access control device (but maintenance issues)
  - traffic plans to minimize car flows
Key factors for a good insertion

- adapt the operating conditions and ways
  - set up running on single tracks to keep enough places for pedestrians
    - one way track with return on a parallel street
  - alternate running in one street
- Set up simplified maneuvers zones
Relevant locations for cohabitation between streetcars and pedestrians

- Major historical roads in commercial and service districts
Relevant locations for cohabitation between streetcars and pedestrians

- Forecourts of railway stations

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Relevant locations for cohabitation between streetcars and pedestrians

- Multi-modal connections centers
Relevant locations for cohabitation between streetcars and pedestrians

- Downtown plazas

Brest, Liberté sq.

Nice, Massena square
Relevant locations for cohabitation between streetcars and pedestrians

- Narrow streets
Relevant locations for cohabitation between streetcars and pedestrians

- Lateral location of tracks in wide streets

Nantes, 50 otages Avenue
Advantages and limits

**Advantages**
- good image of the tram (/ Bus)
  - less noisy and polluting
  - soft and friendly
  - smooth running
- calmed traffic
  - bicycles moderated by pedestrians
  - few motorized traffic
  - low speed for all

⇒ No big safety issue

**Limits**
- high frequency of tramways
  - a wall in the street
  - risky behaviors
  - bad regularity
• Any question ?...

Thank you for listening
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