BIKE PARKING IN SHOPPING STRIPS

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Other uses of parking in public spaces

Clockwise from right:

Designer Michael Rakowitz's P(LOT), Vienna, Austria
Parking Day in London and Fairfield (Aust), Sept. 2009
Designer Adrien Rovero’s Bike Rack
Restaurant, Avignon France
1. What is the role of public space?
2. Inherent challenges in installing bike parking
3. Lygon Street case study
1. **What is the role of public space?**

2. Inherent challenges in installing bike parking

3. Lygon Street case study
Public space for social and economic activity

**FOR EXAMPLE**

**On street dining = Social/Economic**

**Public seating = Social**

**Parking = Economic**
Changing uses of public space...with more traffic...

1950s

Today

High street, Northcote
...more landscaping, wider footpaths..
... more parking

1910

Smith St, Collingwood

Today
...and more bike parks

Cycling to Work: Residents of Inner Melbourne Region
% of total population who ride to work

1) Includes Cities of Melbourne, Yarra and Port Phillip
Location options for bike parking

- Footpaths: Capacity limited
- Bike parking buildings: Expensive
  - Only needed where demand is very high
- Kerb extensions at intersections: Only possible in some location
- Use green space: Likely to be unpopular
- On street car parking: Applicable widely
  - Useful in locations which have limited capacity for footpath bike parking

Others…
1. What is the role of public space?

2. **Inherent challenges in installing bike parking**

3. Lygon Street case study
Parking changes are controversial

- Implementing ANY plan that requires changes to car parking is difficult
- Traders are concerned about loss of revenue
  - People going elsewhere
  - Lack of convenience
  - Bike riders don’t spend money…

Some recent media headlines:

1) Lygon St traders fight parking meter plans
2) Heidelberg traders parking mad
3) Plan to turn Sydney Road into a cycle way

“…. the idea has outraged local traders”

1) The Age online, 24/5/06
2) Heidelberg Leader online, 17/6/09
3) The Age online 22/8/08
What is the economic value of replacing car parking with bike parking in shopping strips?

Increasing the rate of bike parking can have economic benefits

7 Findings
1. What is the role of public space?
2. Inherent challenges in installing bike parking
3. Lygon Street case study
Study Background

- **Case study** selection
  - Demand for Car Parking
  - Demand for Bike Parking
  - Limited Footpath Space
  - Used by locals
  - Used by metro visitors

- **Application** of Findings
  - Shopping strips (not stand alone malls)
  - Inner Melbourne

- **Method 1:** Visitor Travel Survey to determine:
  - Expenditure of cyclist/drivers
  - Trip types
  - Origin (residence)

- **Method 2:** Public Space Mapping
  - How much space is allocated to cars compared to bikes?
Many visitors arrived by car

... and come to shop

Mode Split
Lygon Street, Carlton

Trip Purpose
Lygon Street, Carlton

- Bike
- Car
- Walked
- Public Transport

12% Bike
20% Car
29% Walked
39% Public Transport

18% Café/Restaurant
16% Entertainment
15% Grocery Shopping
31% Other Shopping
5% Services
7% Work
9% In-Transit (through strip)
**FINDING 1:**

Car users spend more money... and more time

**Expenditure by mode ($)**

- **Projection: Per trip**
  - Bike: $62
  - Drove or was driven: $118
  - Walked: $79
  - Caught public transport: $80

  - +91%

**Expenditure: Per minute**

- **+37%**

  - Bike: $0.79
  - Drove or was driven: $1.08
  - Walked: $0.96
  - Caught public transport: $0.69

<table>
<thead>
<tr>
<th>Mode</th>
<th>Trip duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike</td>
<td>1 hour 18 min</td>
</tr>
<tr>
<td>Car</td>
<td>1 hour 49 min</td>
</tr>
</tbody>
</table>

* Based on car occupancy of 1.2 people per car
FINDING 2:

Space used by bikes generates 3.6 times more expenditure

Expenditure generated by Parking Space

<table>
<thead>
<tr>
<th>Area of Parking space</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car 13m²</td>
<td>$7 per m²/hr</td>
</tr>
<tr>
<td>Bike 1.5m²</td>
<td>$31 per m²/hr</td>
</tr>
</tbody>
</table>

* Based on car occupancy of 1.2 people per car
Lygon Street project replaced 2 car spaces with 12 bike spaces

<table>
<thead>
<tr>
<th>Before: 2 Cars</th>
<th>After: 12 Bikes</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% occupied = $156 p/h revenue generated</td>
<td>100% occupied = $565 p/h revenue generated</td>
</tr>
<tr>
<td>~30% occupied = &gt;$156 p/h revenue generated</td>
<td>~30% occupied = &gt;$156 p/h revenue generated</td>
</tr>
</tbody>
</table>
Infrastructure influences mode choice

PRELIMINARY FINDING 3:

How will I get to Lygon Street?

Will I have to pay to park?

Where will I park?

I'm not sure I'll find a convenient on-street park

Will the roads be congested?

My cars really nice!

Where will I park?

I know I will get a convenient park

It might rain...

Is it safe?

Is it convenient?

I need exercise!
Infrastructure influences mode choice

Would you cycle more with better infrastructure?
Intercept Survey Responses: Eltham and Diamond Creek

- Yes: 25%
- No: 75%

Source: Booz & Company for Shire of Nillumbik, Nillumbik Sustainable Transport Study and Strategy, 2009
**FINDING 4:**

Equitable = up to 10 car parking spaces used for bike parking

<table>
<thead>
<tr>
<th>Lygon St: Supply of Car Parking and Bike Parking</th>
<th>Compared to mode split</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of parking spaces (2007)</td>
</tr>
<tr>
<td>Bike</td>
<td>30*</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td>173**</td>
</tr>
</tbody>
</table>

1:3 (2007)

* Includes only formal bike parking spaces (excludes poles)
1 hoop = 2 spaces
** Excludes off-street parking spaces

Introduced incrementally + monitored.
Clothing retail and food/drink premises benefit most from bike parking

FINDING 5:

Car use greater than average

Bike use greater than average

- Services: 91% (9% bike, 81% car)
- Shopping: Grocery: 81% (19% bike, 62% car)
- Entertainment: 79% (21% bike, 58% car)
- Shopping: Clothing / Comparison Goods: 75% (25% bike, 50% car)
- Work: 74% (26% bike, 48% car)
- In Transit (through strip): 71% (29% bike, 42% car)
- Food/Drink Premises: 70% (30% bike, 40% car)

Average:

- Bike: 24% (22% of car use)
- Car: 76% (78% of car use)
Cycling isn’t available to everyone

- Cycling catchment = SMALL

- 3 top places of residence for cyclists:
  - 21% Carlton North
  - 13% Carlton
  - 11% Brunswick/Brunswick East
Car access ensures metro accessibility...

- **Driving catchment = LARGE**
- **Variety of residential postcodes for:**
  - Car drivers and passengers = 250
  - Public transport users = 58
  - Cyclists = 39
  - Pedestrian = 25
Many drivers drive to Lygon Street (who don’t have to)

- 3 top places of residence for car users:
  - 8% Brunsw’/Brunsw’ East (4km)
  - 6% Carlton North (2.5km)
  - 6% Carlton (>1.5km)
  = 20%

- 20% car users are from top 3 cycling origins

- Some people have to drive, eg:
  - Mobility impairment;
  - Heavy shopping;
  - Stopping en route…

Unlikely to be 20% of car trips
In summary

7 Findings:

1. Car users spend more money
2. Space used by bikes generates 3.6 times more expenditure
3. Infrastructure influences mode choices (prelim. finding)
4. Fair = Parking provision commensurate with mode split
5. Highest economic benefit: Food/Drink premises and clothing/comparison goods retailers
6. Car ensures Metro accessibility
7. Many driver choose to drive (but do not have to)