New urban lifestyles and welfare: water consumption in the suburbs of Barcelona

Elena Domene
Institut d’Estudis Regionals i Metropolitans de Barcelona UAB
Introduction

- Changing lifestyles and changing urbanism
  - Welfare
  - Social preferences

- Gardens and swimming pools, new geographies of consumption
  - New spaces are being created for and by consumers
  - Consumption is involved in creating personal, political and place identities.

- Water related consumption patterns
  - Connotations of power
  - Social expression
Urban change in the Barcelona Region

Population in the Metropolitan Region of Barcelona (1975-2011)

Source: Dades ambientals AMB and Idescat

Driving forces (demographic, economic and cultural):

- Higher demand for housing due to longer life expectancies, weight of the \textit{boom} generation and decrease in the household size
- Higher housing prices in the centre.
- Greater amount of land ready for development in the periphery
- Social preference for single-family housing in the periphery (easy access to open spaces, cleaner air, etc)
New water consumption patterns

Factors conditioning domestic water use:

- Household size
- Housing size
- Metering
- Water price
- Environmental awareness
- Climate

Low density urban form (with important presence of gardens and swimming pools) contribute to the higher water consumption observed in households of the second periphery. **Spatial differentiation**
New water consumption patterns

Average volumes of household consumption (l/pd) and water for gardening (l/m\(^2\) × week) according to income class

<table>
<thead>
<tr>
<th></th>
<th>Summer</th>
<th>Annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household consumption (l/pd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low income group</td>
<td>248</td>
<td>215</td>
</tr>
<tr>
<td>High income group</td>
<td>459</td>
<td>322</td>
</tr>
<tr>
<td>Water for gardening (l/m2xweek)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low income group</td>
<td>18,6±11,3</td>
<td>7,3±4,6</td>
</tr>
<tr>
<td>High income group</td>
<td>30,7±9,2</td>
<td>12,1±4,7</td>
</tr>
</tbody>
</table>

Increasing outdoor water use is related to **social preferences** for gardens with grass and other highly consuming species to the detriment of autochthonous Mediterranea species less appealing aesthetically but more adapted to climate. Social differentiation

Positional goods
New water consumption patterns

Garden type of low income class: Mediterranean garden

Garden type of high income class: Atlantic garden
Private garden irrigation

Irrigation adequacy: perception

Low income group:  
55% complained that they not irrigate according water needs because of:  
- High water cost

High income group  
25% complained that they not irrigate according water needs because of:  
- Lack of time  
- Environmental awareness

Irrigation adequacy: results

Gardens in the Barcelona Region present certain irrigation deficit, specially in the summer months:  
- Low income group: 43%  
- High income group: 23%
New water consumption patterns

The total amount of water for watering the gardens is around 40 Hm3/year, and for maintaining the swimming pools, 3 Hm3/year, of the 375 Hm3/year of domestic consumption.
Porque el reconocimiento de los tuyos importa
Do you have a dream?

In swimming pools S&S we make it real...

Do you have a dream?

Your own swimming pool?

Why not?

They are asking for it...

Your own swimming pool?

They are asking for it...

This summer don't leave them without...
Conclusions

• Single or detached housing with gardens and swimming pools are fashionable commodities that have arrived to growing segments of the population in the MRB.

• Influenced by structural, geographical, social and cultural factors (real market evolution, suburban model, housing preferences)

• Gardens and swimming pools are positional goods

• Gardens become a product of sociophysical processes with important connotations of power.

• Contradictions of these development