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

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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

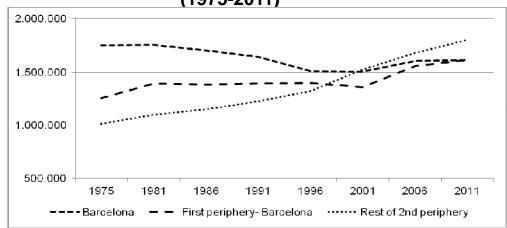
Suburban dream





Urban change in the Barcelona Region

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



Typical new urban development in the RMB

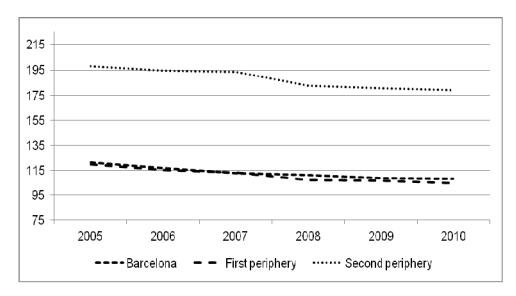


Source: Dades ambientals AMB and Idescat

Driving forces (demographic, economic and cultural):

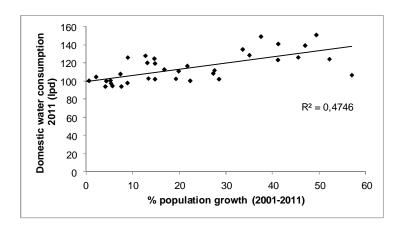
- Higher demand for housing due to longer life espectancies, weight of the \$\infty\$com+ generation and decrease in the household size
- Higher housing prices in the centre.
- Greater amount of land ready for development in the periphery
- Social preference for single-family housing in the periphery (easy access to open spaces, cleaner air, etc)

Domestic water consumption per capita in the Metropolitan Region of Barcelona (2005-2010)



Source: Elaboraion from Idescat and Dades Ambientals AMB.

Relationship between percent of population change (2001-2011) and domestic water consumption (2011).



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**

Factors conditioning domestic water use:

- Household size
- Housing size
- Metering

- Water price
- Environmental awareness
- -Climate

Average volumes of household consumption (lpd) and water for gardening (l/m² x week) according to imcome class

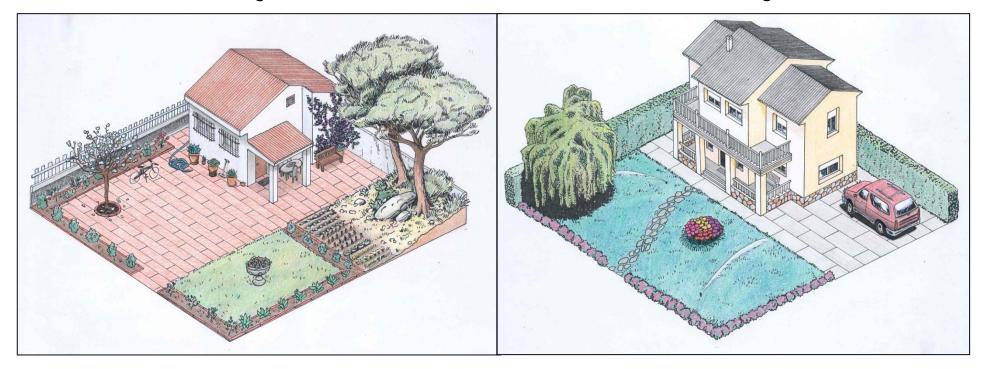
		Summer	Annual average
Household consumption (lpd)	Low income group	248	215
	High income group	459	322
Water for gardening (I/m2xweek)	Low income group	18,6±11,3	7,3±4,6
	High income group	30,7± 9,2	12,1±4,7

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

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

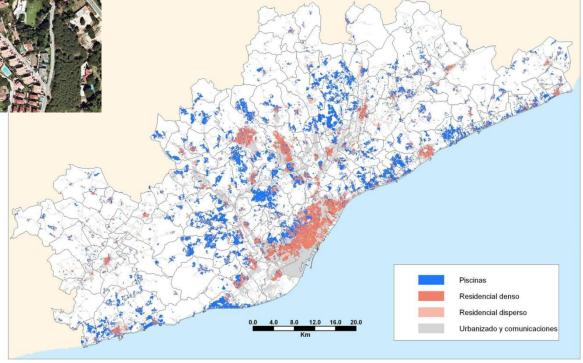
Gardens in the Barcelona Region present certain irrigation deficit, specially in the summer months:

- -Low income group:43%
- High income group: 23%



The total amount of water for watering the gardens is aroun 40 Hm3/year, and for maintaining the swimming pools, 3 Hm3/year, of the 375 Hm3/year of domestic consumption.

Sant Andreu de Llavaneres Maresme



Suburban model





Porque el reconocimiento de los tuyos importa

Suburban model







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