Barcelona and the satellite city
Rethinking growth: Hyper-density and relational equilibrium

This international architecture competition entry responds to a call for the rethinking of growth given a projected migration into the Barcelona region of 400,000 people over twenty years. Outcomes of the speculation are demonstrated into specific sites in Barcelona and the satellite city of Amposta, 2 hours from Barcelona by very fast train. The 97 kilometre conurbation of Barcelona supports a population of 1.5 million at 15 400 people per square kilometre. Every day 1.16 million people make the pilgrimage across the city limits on foot, by public transport or the majority in cars. Traffic congestion makes Barcelona the second noisiest city in Europe.

In the last 20 years its population has increased by 36%. The population of satellite cities grew by 325%. Housing has become unaffordable. People have been dispersed from the city to satellite cities and to regions outside the municipal boundary serving as dormitory ghettos for low paid workers. Building regulations and the cost of housing within the city have made some areas outside the municipal boundary denser than the city centre. Barcelona is one of the worst performers in Europe in terms of population dispersal in relation to the built-up area.

We propose an update of current policies of conservation and renovation. A strategy is required for combining existing urban fabric with a range of new typologies. Social dynamics in the city now occur on its edges around infrastructural hubs. A constructed carved out topography is proposed in reclaimed industrial areas to form networks of hyper-density sinks. These are structured around landscape as infrastructure to absorb growth. Satellite cities are made desirable to a range of income groups to break the dormitory ghetto cycle. Without these strategies Barcelona would be unable to accommodate the new population and the pattern of sprawl around Barcelona’s satellite cities would worsen. They re-centre the city’s pattern of growth. With the overlay of new networks of density, traces of the labyrinthine historic city are configured into new constellations and Cerdà’s grid is freed to reclaim optimum potential.

A string of residential towers line the new high speed train line acting as a foil to the horizontal city. These dense concentrated communities key into the existing transport system. The Amposta site represents the idea of an alternative rural lifestyle adjacent to satellite cities to attract a broad range of socio-economic groups. The given site is extended into a dispersed linear city between Amposta and the adjacent coastal port. Agrarian program is intertwined with urban program worked into the existing land-use structure aimed at achieving a state of relational equilibrium across programs, vertically stacked along an existing canal with horizontal programmatic mats inhabiting exhausted farm plots.

The projected population growth is of a magnitude similar to the one faced in southeast Queensland. The aim was to establish a speculative approach that might be applied to the local circumstance. The crucial test is demonstrated by outcomes exhibiting a relational equilibrium resonating within and between the city and the satellite city.