Barcelona and the Satellite City

Rethinking growth: Hyper-density and relational equilibrium

The international architecture competition entry responds to a call for the rethinking of ways of dealing with growth given a projected migration into the Barcelona region of 400,000 people over the next 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 wide conurbation of Barcelona supports a population of 1.5 million or 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 the population of the city has increased by 36%. The population of satellite cities grew by 325%. Housing has become unaffordable and people have been dispersed from the city to satellite cities and to regions outside the municipal boundary that have become 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.

In the context of this unprecedented growth Barcelona must update current policies of conservation and renovation. A strategy is required for combining existing urban fabric with a range of new foreign topologies based on the premise that social dynamics in the city may well occur on its edges around infrastructural hubs or interchanges. A constructed carved out topography is proposed in reclaimed industrial areas to form networks of hyper-density units. These are structured around landscape as infrastructure to absorb the growth. The 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, consuming valuable land resources. 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 its optimum potential.

A string of residential towers line the new high-speed train line acting as a foil to horizontal city. These dense concentrated communities are positioned to key into the existing transport system. The Amposta site represents the idea of an alternative cut Westfield adjacent to satellite cities. Rather than becoming a commuter site low on amenity, the site is extended to become a dispersed linear city between Amposta and the adjacent coastal port. In this city urban program is woven by 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.

This project explores a projected population growth of a magnitude similar to the one faced in southeast Queensland. It was undertaken with the aim of establishing a speculative approach that might be applied to the local circumstance. Given the regional scope of the question the crucial test is demonstrated by outcomes exhibiting a relational equilibrium that resonates within and between the city and the satellite city.