**RE-VITAL CITY**

Seeking key elements as drivers to reshape urbanity in Songjiang New town, Shanghai

**CONTEXT**

China turned to the Open-Policy in 1978 and began its rapid urbanization process. To handle the urgent demand from working migration and reduce the problems triggered by congestion in mega cities, decentralization and new towns are widely accepted for Chinese urban planners. Meanwhile, plenty of new towns have been planned and built in China.

**LOCATION**

Songjiang is a small town with a long history since the 16th century and it was planned as a satellite city to be built on Shanghai’s fringe in 1959. Dong set special economic zones (SEZ) of Shanghai in 1990 and start Shanghai’s third period of flourishing until now. International business sector was attracted and it generated the flow of working migrations. In order to reduce the congestion of central city, a new comprehensive plan was approved in 1999, which proposed to build nine new towns (300,000-1,000,000 residents) around Shanghai. Songjiang new town is developed based on this plan.

However, current development paradigm cannot support the creation of urbanity in newly developed areas. An instant city making (22.4 km² in 10 years) guided by stark zoning and was fermented in the Chinese middle class dream: gated community and private cars finally forgot urban vitality (Figure 4). The image is urban, but the atmosphere is unanimated and suburban. Ironically, the population density in Songjiang new town is similar to its more successful old Songjiang city.

**Problem Statement**

"Which key elements can reshape the urbanity in Songjiang new town and how to use strategic planning to accelerate the transformation from new town to real city?"

**Research Question**

"The research will focus on identifying key spatial compositions which can provide conditions for urban complexity through a series of GIS-related urban simulation methods. Then those measurable key elements will be used to revise the current development patterns to seek for feasible urban rules underpinning design decisions."

**Methodology**

Measurable urban simulation models were used in urbanism research since computer technology was introduced to urbanists. Using quantitative research methods to research new towns was firstly raised by the International New Town Institute (INTI) in its 2007 yearly conference. Karimi et al. (2007) used the Space Syntax method to develop strategies for currently problematic new towns. In addition, several GIS-related tools, like Mixed Use Index (Van den Hoek, 2009), Spacematrix (Berghauser Pont & Haupt, 2010) and Urban Tracking (Van Schaick & Van der Spek, 2008) have been used in new town research as well. These methods can complement each other and contribute to a more quantitative and objective understanding for spatial and social aspect in the city.

The complexity of city makes that we cannot find the paradigm for best city, nevertheless, quantitative analysis on built environment can help us to understand the rules of city better and find the way can accelerate the transformation from new town to real city. This research could be of great value to guide future urban development and it is worth further exploration.
QUANTITATIVE ANALYSES VIA GIS RELATED METHODS

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5. The transformation rules in urban scale

5.1 The corresponding rules in two aspects

Adding roads & entrances

Encouraging functional mixture

Improving interactions between buildings & streets

New roads & entrances

Functional implantation

Ground floor functional changing

Strong functional improvement

Soft functional improvement

Slight functional improvement

The transformation rules corresponding to spatial integration problems

The transformation rules corresponding to ground floor / urban design problems

THE TRANSFORMATION RULES AND INTERVENTIONS IN DESIGN EXAMPLE AREA

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