A Thesis for the Degree of Ph.D. in Engineering

Liveability and Anticipated Shrinkage: Urban Design Assessment of Morphology and Management in Tokyo's Peripheral Areas

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**Thesis Abstract**

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**Thesis Summary**
Demographic changes in the Japanese society will inevitably restructure Tokyo’s spatial organization in the coming decades: population loss will manifest itself unevenly and be most dramatic in peripheral areas, challenging established notions of quality of life. Several scholars have tackled this issue from a geographical or planning perspective. Nonetheless, the question of how liveability at the urban design scale could be addressed, remains an open one.

This research focuses on Tokyo’s peripheral areas, aiming to evaluate, in a comparative manner, urban design factors affecting liveability at the neighborhood/city scale in an upcoming age of shrinkage, based on the analysis of three case studies (Kunitachi, Tama New Town, Yukarigaoka). After providing a tailored definition of liveability, emphasis is put on six factors relating to morphology (density/compactness, diversity of uses, walkability, green/water space) and to urban management (*machizukuri*/participation, local character).

The research is limited to the Greater Tokyo Area because of its uniqueness within the Japanese urban development. Our findings have clarified the need to focus urban design and policy-making on compactness, rather than on density; the importance of a spatial qualitative assessment of the mix of uses, otherwise deceiving from a purely quantitative planning standpoint; the possibility to maintain liveability in low-density settlements with the implementation of ad hoc accessibility strategies; the positive and negative effects of different types of green spaces; the importance of both cooperative and confrontational participatory practices toward co-production; the need for peripheral areas to offer a lifestyle alternative to that of the city center.

Beside presenting a workable and applicative toolkit for urban designers, we provide new data and information about our case studies for the benefit of local municipalities and interest groups, proposing an exemplary “shrinkage masterplan”. Moreover, by means of comparison, tactics to cope with shrinkage can be transferred to and tested in other areas around Japan and be a reference for numerous East Asian cities about to face, in the near future, their own age of shrinkage.