



Can Public Space System Functions Succeed Across Boundaries? A Comparative Study of the Urban Planning Practices in Suzhou Industrial Park and Singapore

Jiawen Han^(✉) 

Xi'an Jiaotong Liverpool University, Suzhou, China

Jiawen.Han@xjtlu.edu.com

Abstract. Since the 1960s, Singapore's Housing and Development Board (HDB) has gradually established a comprehensive, hierarchical planning system for housing and public space in high-density residential areas. In the late 1990s, Suzhou Industrial Park (SIP) began to draw on Singapore's planning experience, absorbed certain planning concepts, and attempted to build up its urban model in China. The spatial practice and conceptual translation from Singapore to the SIP warrants reflection on the differences and issues in the two planning and urban management contexts. This article first investigates the issues in that translation when the planning concepts in Singapore (e.g. neighbourhood and precinct) were translated into Chinese planning contexts, in which some translations were made based on literal meanings without intricate mapping from one context to the other. Through fieldwork and policy mapping between the two places, the research further highlights the precincts and gated communities that have been neglected in comparing the two systems as an essential urban unit in making the spatial ductility and urban connectivity of public spaces in the hierarchy of Singapore difficult to achieve in the SIP. The investigation into the neighbourhood centres and void deck spaces in the SIP as transferable concepts from Singapore also found that more large-scale, multifunctional, centralised small shopping malls have been increasingly planned in recent years, such that everyday public spaces close to ordinary life are in danger of shrinkage. This article points out the trend for constructing centralised neighbourhood centres should be revisited, and the priority should be made to create a fluid urban system with public spaces connecting to each other.

Keywords: Singapore · Suzhou Industrial Park · Public Space System · Transnational Planning

1 Introduction

Since the 1960s, Singapore's Housing and Development Board (HDB) has gradually established a comprehensive, hierarchical planning system for housing and public space in high-density residential areas. In the late 1990s, Suzhou Industrial Park (SIP) began to draw on Singapore's planning experience, absorbing certain planning concepts and

attempting to build up a similar urban model in China. The spatial practice and conceptual translation from Singapore to the SIP warrants reflection on the differences and issues in the two planning and urban management contexts. The lack of critical analysis of the existing policies and studies of the translation of this planning system and some basic concepts has prevented appropriation in the SIP of many of the Singaporean concepts and theories, and in some cases has even produced results that run counter to them. By critical review of the related policies and literature, this article first investigates the issues in that translation when the planning concepts in Singapore were integrated into Chinese planning contexts, in which some translations were made based on literal meanings without intricate mapping from one context to the other. This researcher further conducted fieldwork in the residential communities in both Singapore and the SIP. Through fieldwork and policy mapping between the two places, the research further highlights the precincts and gated communities that have been neglected in comparing the two systems as an essential urban unit in making the spatial ductility and urban connectivity of public spaces in the hierarchy of Singapore difficult to achieve in the SIP. The investigation into the neighbourhood centres and void deck spaces in the SIP as transferable concepts from Singapore also found that more large-scale, multifunctional, centralised small shopping malls have been increasingly planned in recent years, such that everyday public spaces close to ordinary life are in danger of shrinkage. Whether the public spaces in dense residential areas should be neighbourhood-centralised in both contexts is also critically discussed.

2 Revisiting Translation in the Transnational Planning Concepts and Practices

2.1 The Confusion Caused by Literal Translation of Terminology

Singapore's public housing has been developed under the auspices of the Housing Development Board (HDB). Its public space system rationally has addressed many of the problems associated with high-density settlements. Suzhou Industrial Park has adopted planning concepts from Singapore and incorporated them with residential planning features in China. When translating Singapore's planning system into Chinese, Chinese scholars have proposed different sets of introductions and translations, in which some selective components in the whole system were chosen, and some of the translations of terms were based on the literal meaning of the translated concept.

When introducing the planning concepts and system into China, some scholars have translated Singapore's planning structure as new town (新镇), neighbourhood (小区) and precinct (邻里) [1]. *Neighbourhood* is translated as 小区, whereas 小区 in Chinese generally refers to gated communities. The scale and connotation of neighbourhood in the Singaporean model does not correspond to the 小区 generally referred to in the Chinese urban context. Some Chinese scholars have also translated the hierarchy of the planning structure of public housing in Singapore's town (市镇), *neighbourhood* (邻里), *precinct* (邻区), *block* (住栋) and *apartment* (居住单元) [2]. 邻里 is a more appropriate translation of *neighbourhood*, as opposed to 小区, since neighbourhood can be used to refer to neighbours and relationships that extend beyond the geographic location of the

home and encompass a wider range of geospatial space. The translation of *precinct* as 邻区 explains the cohesive area of the residential cluster, instead of being translated as 邻里. Other scholars introduced and simultaneously translated the planning hierarchy into *new town* (新镇), *neighbourhood* (邻里) and *precinct* (住宅组团) [3]. Compared to the translation of precinct as 邻区, “住宅组团” describes precinct more clearly and concisely, indicating the formation of residential clusters through rational site planning and design in the Singaporean context. In general, neglected misunderstandings and confusion caused by the translation and partial introduction when the planning system concepts travelled from Singapore resulted in unclear meaning and twisted practice in the Chinese context.

2.2 The Absence of the Precinct in the SIP Context

Due to such language confusion, the literal translation of the Singaporean concepts of *precinct* and *neighbourhood* sound similar in Chinese. From formal residential land classification in the SIP, each residential cluster should accommodate 300–1000 households, which is theoretically the same level as the precinct in Singapore, which accommodates 400–800 households. Meanwhile, 300–1000 households in the SIP are scaled as a small gated community or a cluster within a large gated community. Singapore’s precinct is an aggregated grouping in a spatial form, a fluid and mutable spatial definition that is not walled off for demarcation. The precinct which was an emphasis in the Singapore town planning of the 1980s normally repeated itself in clusters of 4 hectares, or sometimes half the size, serving four to eight blocks of flats. Six to eight precincts would share a neighbourhood centre, which was usually five minutes’ walking distance from the precinct [4]. The Singapore planning model adopted at the beginning of the SIP was redefined in the typical Chinese planning in practice. Due to the deep-rooted Chinese gated community model, the concept of the precinct was invalid in the spatial translation into real practice. Urban morphology and governance in China do not facilitate the formation of open residential clusters via planning and urban design. The fences of gated communities are still the most vital feature defining urban spatial patterns in China. In the end, only the neighbourhood was strengthened in the SIP and implemented as the neighbourhood centre.

In Singapore, each neighbourhood can accommodate 4,000–6,000 households (20,000–30,000 people), and each neighbourhood is equipped with a *neighbourhood centre*, which contains public functions such as markets, food outlets, healthcare points, religious buildings, and primary schools [5]. The service radius of the neighbourhood centre is 400 m, and the neighbourhood units are divided into precincts, i.e. 400–800 households can share daily activity features, such as children’s playgrounds, basketball courts and fitness points. In the SIP, the most prominent Singaporean-type element is the neighbourhood centre, which aims to provide comprehensive daily life services for residents within a service radius of 500–800 m and a population of 20,000–40,000 people. Neighbourhood centres are equipped with 12 basic functions, including supermarkets, banks, communications facilities, catering, maintenance points, fresh food courts, and health centres [6].

The neighbourhood centre in the SIP covers a slightly larger radius than the ones in Singapore. Having a similar neighbourhood in both areas, the vital mechanism driving

the difference in public space in the residential area is the absence of the precinct level. The public space that is most relevant to residents' daily lives in Singapore is the public space in the precinct, where there are a variety of recreational facilities for the residents, including playgrounds and fitness corners. In the SIP, public spaces relevant to residents' daily lives are generally within gated communities. The facilities are similar and the spaces look seemingly alike. However, such spaces in Singapore are connected to other public spaces like streets, food courts, and squares, whereas such spaces normally are self-sustained for the gated community in the SIP. Although SIP planning appears similar to the Singaporean model, public spaces in the two urban systems are distinctively different due to differing social backgrounds and urban management.

2.3 Discrepancies Caused by the Fence and Gate



Fig. 1. In Singapore, community boundaries are often equipped with public functions close to daily life (left), while in SIP there are no street-level shops within the gated community boundary (right). (Courtesy of the author)

The SIP continues the form of enclosed and gated communities prevalent in Chinese cities. The setting up of fences and gates has essentially altered the Singaporean sense of the neighbourhood's public space, bringing more profound differences in attributes, design and use of the public space. The term *void deck* was created in 1969 by Singapore's HDB to describe the ground floor of HDB blocks being purposely left open as a sheltered space for residents' use. The 'Suzhou Industrial Park (SIP) Urban Planning Management Technical Regulations' required that at least 30% of the residential base area (excluding low-rise residences) should be raised and used for public activity space in 2006, 2010, and the latest edition from 2011 [7]. However, Singapore does not have gated communities in public housing, so the void deck can form a continuous and accessible public space between multiple precincts. Although the SIP implemented the void deck as a transferable concept from Singapore, the void deck is limited to a certain degree of continuous permeability to other public space in the planning system. The gated communities are fenced and the perimeter fence of residential communities is stipulated to be no taller than 1.8 m and is required to be in the form of an openwork. Although the presence of the wall has been reduced as much as possible from the regulations in the SIP compared to previous plans, the void decks inside the community

do not have the spatial extensibility to other communities or public areas as one sees in Singapore.

As the boundary of the gated community is a fence, there are almost no street-level shops facing the public space or street, whereas in Singapore, the ground floor along the street of the residential buildings is often equipped with public functions close to daily life, such as pharmacies, kindergartens and kiosks (Fig. 1). However, in the SIP, it is necessary to go out of the gated community and walk to the neighbourhood centre within a 400-m walking radius. In Singapore, the void deck can also face the street directly, which is convenient for the residents as well as passers-by (see Fig. 2). This instant accessibility within the residential area effectively enhances its walkability and brings more vitality to the void deck and the residence itself, so that the residential building does not become a closed space with a strictly limited boundary.



Fig. 2. The void deck in Singapore residential communities connects with other public spaces and is accessible to both residents and passers-by. (Courtesy of the author)

3 Critical Reflections on the Practices and Trends of Community Space in the SIP

3.1 Should Public Space Move Towards Neighbourhood Centres?

Public space in the community level in China is still in the process of exploration and development. The concept of neighbourhood centres has become a hot topic in recent years [8]. Going beyond the SIP, the concept of Singapore's neighbourhood centres has been put into practice in a number of Chinese cities, and centralised neighbourhood/community service centres have become a new trend. In Singapore, after the 1990s, the HDB reduced some of the void deck spaces in some of the new projects and replaced them with centralised multistorey buildings, namely the *precinct pavilions*, which provide a wide range of public amenities, such as car parks, care centres, convenience stores and vertical green spaces. While both void decks and precinct pavilions are public spaces in settlements, they are fundamentally different in that void decks are not constructed to advocate a particular type of use, while precinct pavilions are designed as function-specific spaces to meet the local functional needs. Some precinct pavilions are not well used as a final result. The void deck usually allows for noise, such as that caused by

funerals or weddings. In contrast to the centralised public space of the precinct pavilion, the void deck as a public space has its own undefined style of fascination. As Limin Hee points out after studying the development of public space in Singapore's settlements and its historical changes, "Void decks are undefined – but managed – spaces waiting to be used, as opposed to its name that suggests it remains mostly void. People have the autonomy to transform the space and did so whenever they utilized it. Today, the precinct pavilion is less utilized since it is out of the way, and thus, there is not as much exploration outside its intended use." [4].

It is undeniable that multistorey composite community buildings have the advantage of offering comprehensive service functions. However, too much focus in China's current community planning is placed on the centralised public space via construction of the neighbourhood centre. From critical reflection on the translation to the Chinese context, the overcentralisation of public space in residential areas should be mitigated, and a community public space system with a good permeability in the urban hierarchy should be enhanced. Centralised neighbourhood centres in the SIP cannot easily become part of the flow of people's daily lives. In contrast, the effectiveness of the void deck as a social space in Singapore stems from its location, as people must pass through it when they leave home and when they return from the external bus station in the urban context to their homes.

3.2 Exacerbation of the Sense of Alienation of Public Places

Since the 2010s, some major property developers in China have gradually recognised the value of void deck space and have developed and researched them in two main directions: pan-club and thematic. As an extension of daily life space, the void deck does not need to be set at more than 5 m' height, but property developers such as Greentown and Longfor Real Estate have created an imposing space of 8–10 m in some of the void decks they have developed, which is the result of commercial logic. Compared with the plain residents' corner in the Singaporean void deck, they used a glass wall to enclose the void in some designs and have imposed an indoor layout to create a sense of a clubhouse (Fig. 3). In some designs, they provide the space with a clear functionality, such as setting up a public kitchen or adding fitness equipment, a water dispenser, a shower room and other facilities. Greentown has launched a "standardised system for designing theme pavilions on void decks", which clearly sets up functional spaces such as children's play space, a reading room, a chess hall and so on. These projects are designed by major property developers as high-end projects. It should be noted that the developers in the latest round of the re-creation of the void deck took great efforts to strengthen its "high-end sense of place".

Many public spaces in Singapore do not have a clear function, but those are the places where informal encounters within the community take place. In China, in the development of neighbourhoods, both government and private developers prefer creating public spaces that have a defined function and are visible and easy to understand. During the sales period of housing developments, the public space often becomes a highlight since they are normally filled with play equipment or fitness equipment. In Singapore's residential areas, the most vibrant places are normally created by the residents themselves.

These public places are inseparable from the HDB residents, and the residents gradually create a sense of place through the practices that occur in this process.



Fig. 3. Compared with the plain residents' corner in the Singaporean void deck (right), the Chinese developer created a sense of a clubhouse in the void deck space, Vanke Feicuidongfang Project (left). (Courtesy of the author)

Overcommercialised residential development has brought the focus on public spaces in the SIP into the realm of symbols and images. The developers' symbolic system has likewise exacerbated the alienation of a sense of place. Existing studies have mostly focused on the spurt of consumer front-end spaces, such as theme-based parks and shopping malls in China – parts of the consumer culture – ignoring the fact that under the influence of mercantilism, the clubhouse-like public spaces in the residential areas are making community public space more homogeneous. This mass-produced spatial development ignores the formation of a real public life for the residents. The highly functional and centralised public space favoured by the major developers leaves less and less space for people to actively participate, so there is little room for the residents to re-create the place. While Singapore's community public spaces provide more ordinary people with spaces and opportunities for public life, the symbolic and figurative public spaces of the SIP's residential public space result in an increased alienation of the sense of place.

4 Discussion and Conclusion

This paper discusses how Suzhou Industrial Park (SIP) has appropriated some elements from Singapore's planning system, by critically comparing the similarities and differences of its residential planning levels and some misunderstandings in translation. The SIP made reference to Singapore's public housing (HDB) planning system in the early 1990s, but its planners lacked sufficient reflection on the history of the formation of Singapore's planning system. The development of public housing in Singapore started in the 1960s and has gone through many stages. Early public housing and public spaces in Singapore emphasised functionality rather than social or other dimensions. The setting and concepts of *neighbourhood* and *precinct* were created to address certain issues in building a community. When these planning concepts migrated to China, careful contextualisation and critical mapping via systematic thinking should have been conducted.

This study has analysed essential differences in the spatial forms of the SIP and of Singapore by identifying the absence of the notion of precinct and the presence of gating in the actualisation in the Chinese context. It points out the spatial result and attributes of public spaces in residential community buildings since the overcentralisation and overcommercialisation have led to the exacerbation of the sense of alienation of public places. This article further points out the trend for constructing centralised neighbourhood centres should be revisited, and the priority should be made to create a fluid urban system with public spaces connecting to each other to improve the spatial ductility and urban connectivity.

The SIP, like most new districts in China, has experienced the ravages of a rapid urbanisation development over the past two decades, with a large number of settlements being built. Many modern planning concepts have been adopted from other countries and other contexts amidst the translation to the different places in China. However, the planning concepts' transfer warrants more critical reflection to tackle the local community issues. Only by doing so can the spatial concept go beyond the space and concept themselves and be further imbued with the social context for people in the place.

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