From village to metropolis: a case of morphological transformation in Guangzhou, China

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Revised version received 6 December 2010

Abstract. *A historical analysis is undertaken of the morphological transformation and present form of a 'village in the city' in Guangzhou. The traditional layout was produced mostly by the clan authorities and provided a basic framework for subsequent development. During the process of rapid urbanization formal and informal alliances between new key stakeholders were established, greatly influencing the spatial restructuring of the village. A critical evaluation of current planning practices highlights the conflicts of interest between different stakeholders. It is concluded that integration of the activities of various key stakeholders is probably necessary in order to achieve more sustainable redevelopment.*

Key Words: village in the city, morphological transformation, stakeholder roles, urbanization

The influence of historical urban and rural features on new urban forms has been studied widely, but largely in the Western world. It is well established that the existing physical and socio-economic characteristics of an area within which urban development and change take place provide a framework that influences the form of what is added or changed (Ward, 1962; Whitehand, 2009). However, much remains to be done on this topic in Eastern Asia. In this paper we explore an example of rural to urban morphological transformation in the city of Guangzhou in south China.

A number of existing urban morphological concepts can help advance understanding of the morphological transformation of rural settlements as they become embedded within cities: the concepts of the morphological frame and the morphological period are especially pertinent. The idea of a morphological frame relates to the way in which existing forms, particularly those created during the process by which rural land is converted to urban use, act as a long-term constraint on subsequent

  ISSN 1027-4278

change (Whitehand, 2001, p. 106). Similarly important is the fact that the forms created in one period are different from those created in another, and that similar forms are grouped over time, giving rise to distinct morphological periods (Conzen, 1969, p. 127). Both these concepts are fundamental to understanding how spatial patterns change over time, not least in the rapid urbanization of villages in Guangzhou.

Of the various other factors that need consideration in this urbanization process, the roles and interrelations between three key stakeholders (the state, the market and civil society) in the production of space are important (De Meulder *et al.*, 2004; Healey, 2006; Masboungie, 2002). In addition to the conventional focus on the role of the state and the market in theories of urban development and planning, civil society has become an increasingly important stakeholder in the shaping of urban space.

However, in China, institutions of the 'third realm' (Huang, 1993) (for example, the Neutral Hall, the brigade, and the collective company), in which the state joins with society for public activities beyond the capacity of formal bureaucratic apparatus, also play key roles in the morphological transformation of what are often referred to in Guangzhou as 'villages in the city' (*chengzhongcun*) (ViCs). The findings of this paper, which concern the historical-morphological transformation of a ViC in Guangzhou and the role of key stakeholders, are considered in this light.

ViCs came into existence earlier in the Pearl River Delta, especially in Guangzhou City, than in other parts of China. As the provincial capital and designated as one of the 14 coastal open cities in 1984, Guangzhou has attracted considerable foreign investment and large numbers of migrants from the countryside into its newly established labour-intensive industries. The urban area has expanded remarkably in the past 30 years. Consequently, a great number of traditional villages at the urban fringe have been swallowed up by consecutive waves of urban development. The governing body of the city often requisitions farmland but generally not the existing residential area of a village, mainly because it prefers to minimize the resistance of villagers and because the expropriation of residential areas entails higher compensation than that of farmland. This leads to many villages not becoming fully urbanized, albeit that they are deeply embedded in the urban area. They are characterized by a mixture of urban and rural features. Surrounded in most cases by skyscrapers, there are 138 ViCs in the original eight districts of Guangzhou (Figure 1).

Shipai village is a fairly typical ViC in Guangzhou. Located near the new central business district (CBD), it was one of the first of the ViCs formed in Guangzhou in the 1980s (Lan and Guo, 2006). It also has the highest building and population densities of any of the ViCs in that city. The development of Shipai village has been promoted by various key stakeholders. The current morphological structure is a product of different planning processes in different morphological periods, reflecting socio-economic and political changes.

Surveys of traditional architecture and spatial patterns in Chinese villages have been undertaken under the direction of Lu and Yang (2004). Recently, Gu *et al.* (2008) presented a historical analysis of the evolution of rural and urban residential building types in the Guangzhou area from 1840 to 1949. Research on ViCs has made considerable progress in the past 20 years, with studies of the definition, characteristics, transformation mechanisms, and renewal strategies in these areas (Lan, 2005; Li, 2001; Li, 2004; Uehara, 2008). Lan (2005) made a special contribution to the literature on the socio-cultural and socio-political dynamics of ViCs. As enclaves in Chinese cities providing affordable dwellings, job opportunities, and education for migrants, ViCs have been broadly studied by Jie and Taubmann (2002), Zhou (2005), Zhang (2005) and Wu (2005). Huang and Li (2007) also analysed the influence of urban expansion on the socio-spatial evolution of Shipai village. However, there has been little research on the spatial forms of ViCs, and how they have evolved.

In this paper, we develop a historical

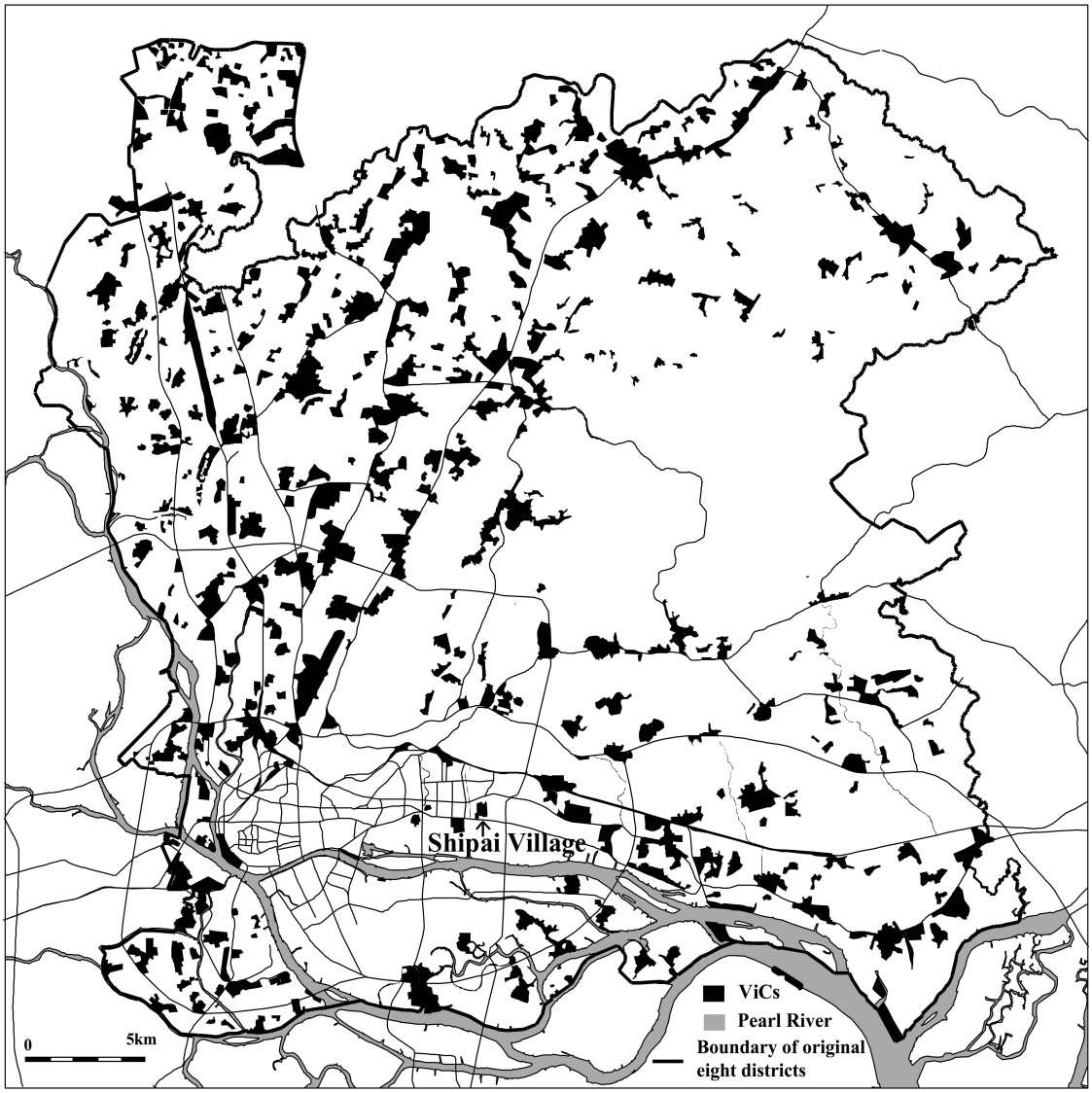

Figure 1. The 138 ViCs in the original eight districts of Guangzhou. Based on an unpublished land-use map of Guangzhou, 2008 (prepared by Guangzhou Urban Planning Bureau).

analysis of the morphological transformation and current form of Shipai village. The findings are based mainly on data collected during three periods of fieldwork (February to April in 2007 and 2008, and August to September in 2009), which included in-depth interviews, site observations, and the collection of historical maps and documents. First, the socio-economic structure of the clan-based traditional village is considered. Then, the intertwining of two distinct waves of urbanization is analysed: the overwhelming wave of city development and the development of the village itself, both of which emerged out of the interactions between key stakeholders during the economic reforms of the 1980s. The analysis shows how the new forms added to and changed the rural form of the village in response to new social, economic and political dynamics. Finally, existing planning practices are evaluated, in particular a large-scale redevelopment project that reflects the conflicting interests among key stakeholders. The paper concludes that greater co-ordination of various stakeholders is needed if a more sustainable development of the

Figure 2. The traditional spatial layout of Shipai village. Based on an unpublished map of Guangzhou, 1985 (prepared by Guangzhou Urban Planning & Design Survey Research Institute) and *Annals of Shipai village* (Guangzhou Tianhe District Shipai Committee, 2003).

village is to be achieved.

The traditional spatial layout

Located 7 km from the old city centre, Shipai village occupied an area of 14 km^2, including 3.2 km^2 of farmland and other land uses (hills, ponds, and residential areas) at the beginning of the twentieth century. With a history of more than 700 years, it was a clan-based traditional village until the Communist Revolution in 1949, largely consisting of four clans concentrated in four different areas of the village. Until that time the clans operated a self-organizational system of coexistence and development. An organization termed the Neutral Hall (*Zhonglitang*), comprising secretaries, authorities from the four clans and night watchmen (*gengfutuan*), dealt with the most important public affairs in the village (Guangzhou Tianhe District Shipai Committee, 2003; Lan, 2005). It was authorized by public authorities and functioned as an intermediary between the state and the village. Taxes were collected from different clans and spent on public activities, infrastructure, schools and the security of the village. Both the Neutral Hall and the clan-elder authority (*zulaohui*), which was responsible for the spatial, social and political affairs of a clan, played key roles in the spatial organization of the village. The clan-elder authority owned and managed a considerable amount of collective farmland (*taigongtian*) and other collective property (such as clan temples, shops, and schools). It was also involved in local planning and supervised the construction of clansmen's houses and alleyways.

The *Annals of Shipai village* (Guangzhou Tianhe District Shipai Committee, 2003) show that there was little physical change in the village settlement between 1949 and 1985. A map of the village in 1985 (Figure 2A) reveals the rudiments of the traditional spatial layout. The village settlement was surrounded by farmland and ponds. A square at the top of a small hill formed the village centre. Several clan temples together with squares and ponds comprised sub-centres at the main entrances to the village. They were the most important places for clan sacrifices, festivals, lawsuits and education. The great majority of buildings were small (about 40-80 m^2) and housed several generations of the same family. Grey block walls and tiled roofs were common, with some of the houses displaying the classic house pattern called *sanjianlianglang* (Guangzhou Tianhe District Shipai Committee, 2003). Three adjacent rooms at the rear comprised the main part of the house. Access to the house was most frequently through one of two small rooms (kitchen and storage) on either side of a central courtyard. To prevent the spread of fire, there was a narrow space of about 30-50 cm between adjacent houses. The houses were in rows, separated by alleyways of 1-2 m in width, which were usually orientated from north-west to south-east. This orientation paralleled that of the prevailing wind and promoted cooling in the hot summers (Lu and Yang, 2004, p. 518).

Interaction between urbanization and self-development

By the 1920s, the farmland in the northern part of Shipai village had been expropriated by the Republican Government to create Shipai Campus of Sun Yat-sen University, and the village was connected to the city area by roads (Figure 3). Since 1958, the land of the village has become collectively owned and managed by collective organizations. The villagers can use and benefit from this collective ownership, but do not have the right to dispose of land. Each village household can acquire a piece of collective land (*zhaijidi*) for housing itself, but it cannot sell or let it. However, the city can requisition the collective land for new development (for example, the construction of urban infrastructure). In the 1950s, a considerable amount of farmland was requisitioned by the state for the establishment of several institutions. In the village settlement, public facilities and services – for example, a medical centre, a sports centre and a primary school – were provided by collective organizations (the

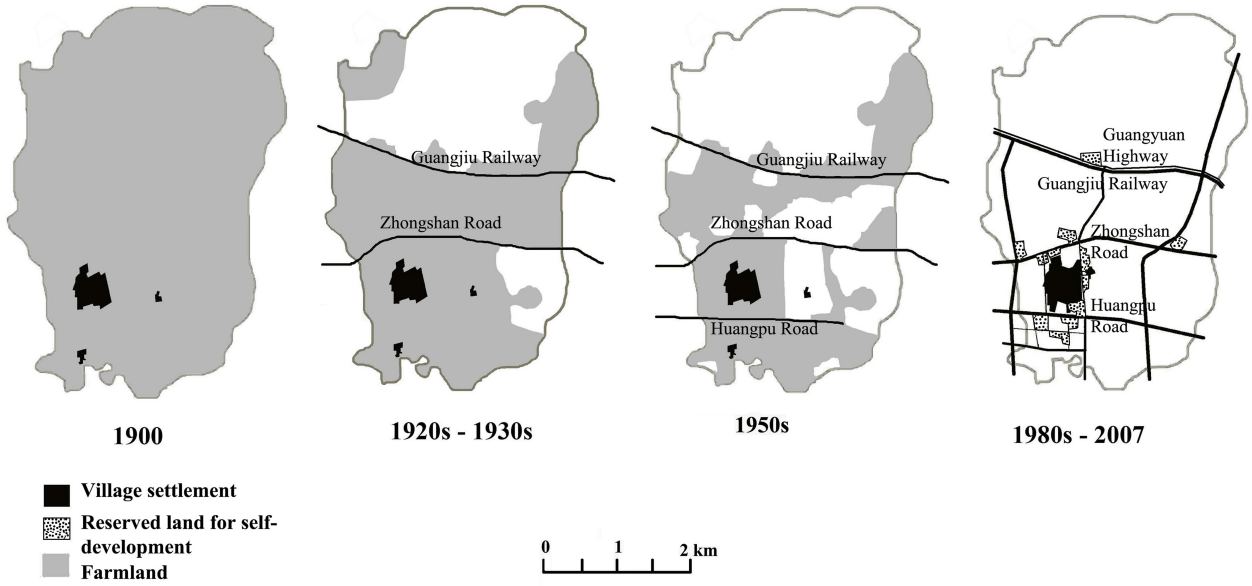

Figure 3. The changing territories of Shipai village. Based on *Annals of Shipai village* (Guangzhou Tianhe District Shipai Committee, 2003) and authors' field survey (2007-2008).

brigade (*dadui*) and several production teams (*shengchangdui*)). Owing to the low economic status of village households, few new dwellings were constructed at this time (Guangzhou Tianhe District Shipai Committee, 2003). During the 1970s, many field lanes were widened and extended. Some of them became farm machinery roads. The farmland consisted of numerous small, regular plots, interspersed by farm machinery roads and lanes (Figure 2A). In the years up until 1985, when the new district was established, the village experienced great socio-spatial transformation. This was associated with two different urbanization processes: city development and self-development of the village. The traditional spatial layout and field pattern (Figure 2B) acted as a 'morphological frame', influencing new development.

The establishment of the new district

With the rapid urbanization of the 1980s came a new morphological period characterized by distinct forms. The Fourteenth Master Plan of Guangzhou was initiated to control the growth of the historical city centre and to encourage eastward development along the northern bank of the Pearl River (Figure 4). A new Tianhe district, which administered a number of villages and towns including Shipai village, was established on the east side of Guangzhou in 1985. Using the opportunity of the Sixth National Games held in Guangzhou in 1987, the city started to construct Tianhe Sports Centre in 1984 and the Guangzhou East Railway Station. In order to compete for international investment with other metropolises in the Pearl River Delta, the Fifteenth Master Plan of Guangzhou (1991-2010) focused on the development of Tianhe district as a new CBD, with particular emphasis on science, technology, research and development functions (Gaubatz, 2005; Huang and Li, 2007; Xu and Ng, 1998). Consequently, the farmland of many villages was expropriated by the city government for urban expansion and the villages became ViCs. The creation of urban main roads in these former rural areas, usually on the lines of previous farm machinery roads, facilitated massive urban development. These roads improved the accessibility of remote areas and formed the new boundaries of the ViCs.

From 1985 to 1994, an area of 254 ha, 79

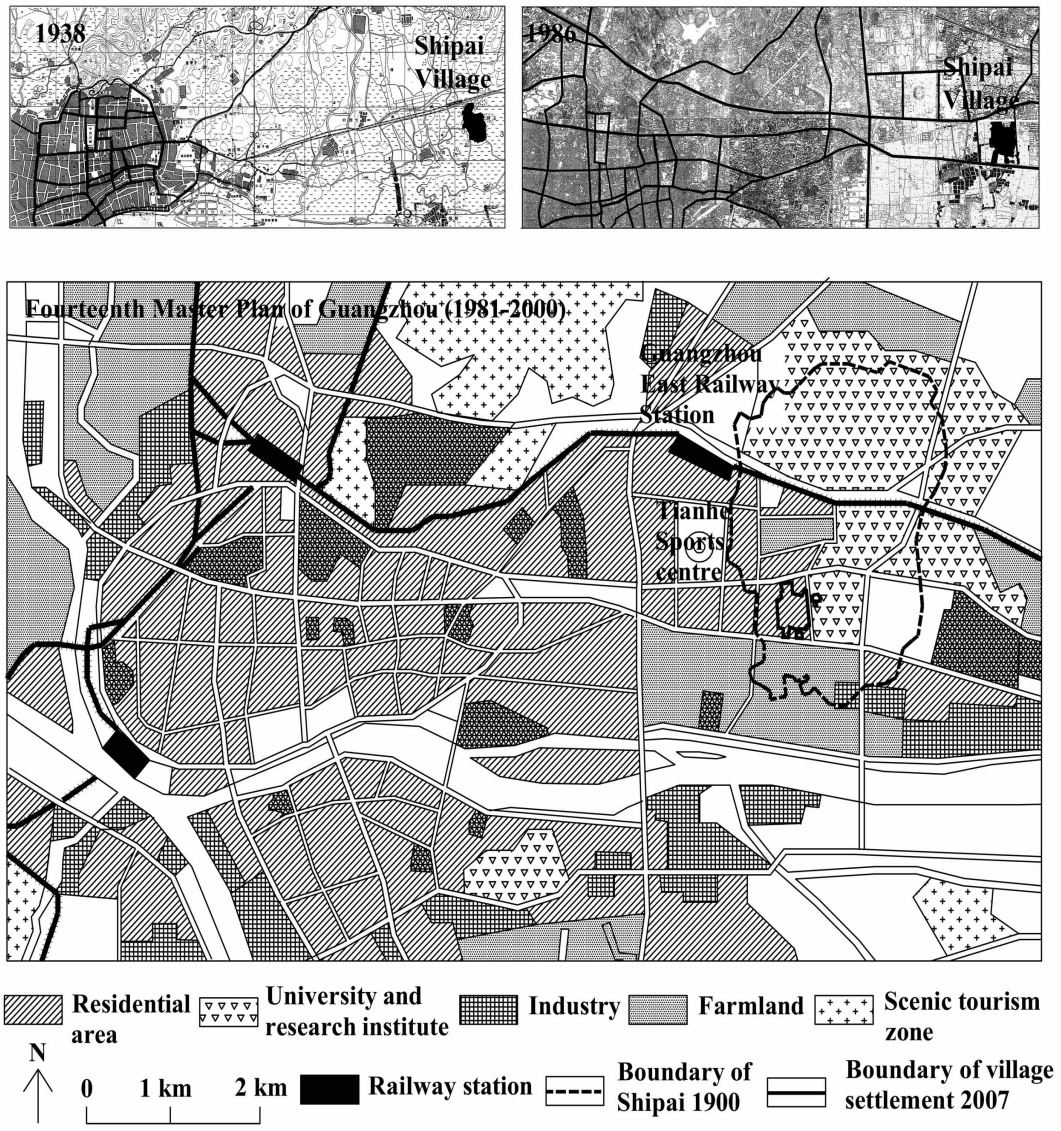

Figure 4. The urbanization and land use of Shipai village. Based on two unpublished maps of Guangzhou (prepared by Guangzhou Urban & Design Survey Research Institute) and the Fourteenth Master Plan of Guangzhou (Guangzhou Local Record Editorial Board, 1995).

per cent of the land of Shipai village, was requisitioned by the city for new developments, including urban roads, new high-technology zones, software parks, scientific research centres, universities, real estate projects, hospitals, banks, hotels and shopping malls (Guangzhou Tianhe District Shipai Committee, 2003) (Figures 3 and 4). The new built-up areas, generally with broad streets, large plots and high-rise buildings, are distinct from the village settlement. Since 1994, the village has been devoid of farmland and enclosed by four urban roads, two of which were adapted from previous farm machinery roads. The location of the village has dramatically changed from being a remote area to being a central place within the city. Its improved location has greatly enhanced its land value and increased job opportunities for the villagers (Figure 5). Collective stakeholders have created partnerships with private and public investors in collective projects,

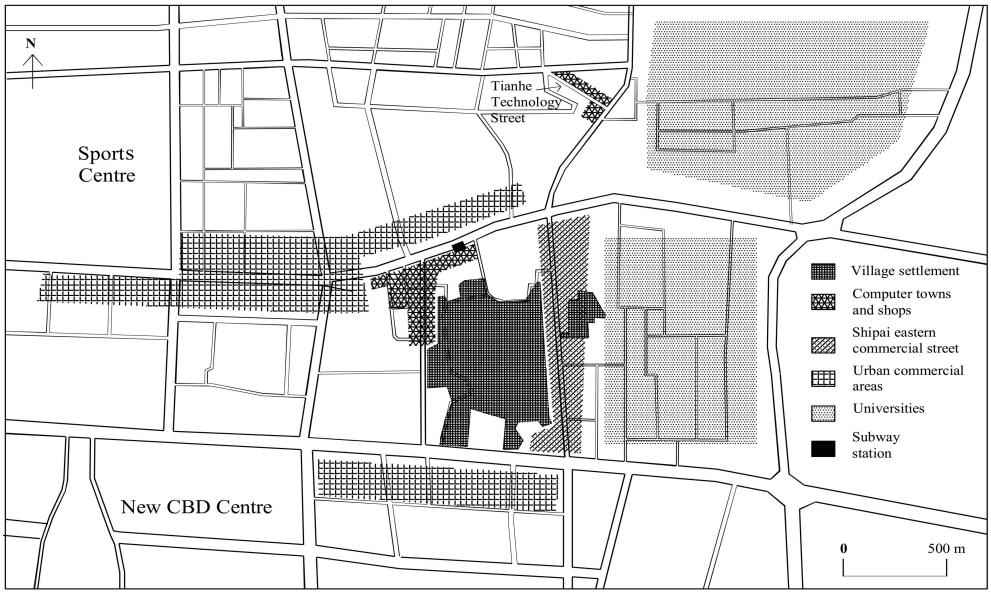

Figure 5. Distribution of major urban land uses. Based on authors' field survey (2007-2008).

while village households have co-operated with speculators or constructed dwellings for letting.

Self-development projects

To deal with the problem of unemployed peasants and facilitate land requisition, a special policy was developed in Guangzhou called the Reserved Land Policy (*Liuyongdi Zhengce*) (Huang and Li, 2007). According to this policy, 8-12 per cent of requisitioned farmland has to be reserved for collective industrial and commercial developments. The collective has the ownership and the usage rights of this land, but it is not allowed to sell it. Many self-development projects, which were required to be developed by the villagers themselves but actually have been based on collective private partnerships, have occurred on reserved land and some other areas of collective land. To deal with the considerable amount of collective property, the role of the collective organization was regulated during the 1990s. The shareholding co-operation company (which manages collective property at the village level) and several economic unions (which manage the collective property of a group of villagers) became the new stakeholders. They function as intermediaries between the city and the village during the land requisition process and manage the collective projects.

As the farmland of the village was taken by the city government piece by piece, the reserved land became fragmented and mixed with urban land uses (Figure 3). The majority of it is concentrated around the geographical periphery of the village settlement, especially along two existing commercial streets (Shipai West Street and Shipai East Street), which have good connections with urban facilities and services. With this new level of accessibility, Tianhe Technology Street (Figure 5), near to a specialist technological university and several science research institutions, began to flourish. Such development also spread into Shipai West Street during the 1990s. However, due to limited capital and capacity to operate the self-development projects, in 1993 the collective organizations adopted the strategy of negotiating 20-year contracts with developers. According to these contracts developers can invest in construction on collective land, but they must pay land rent to

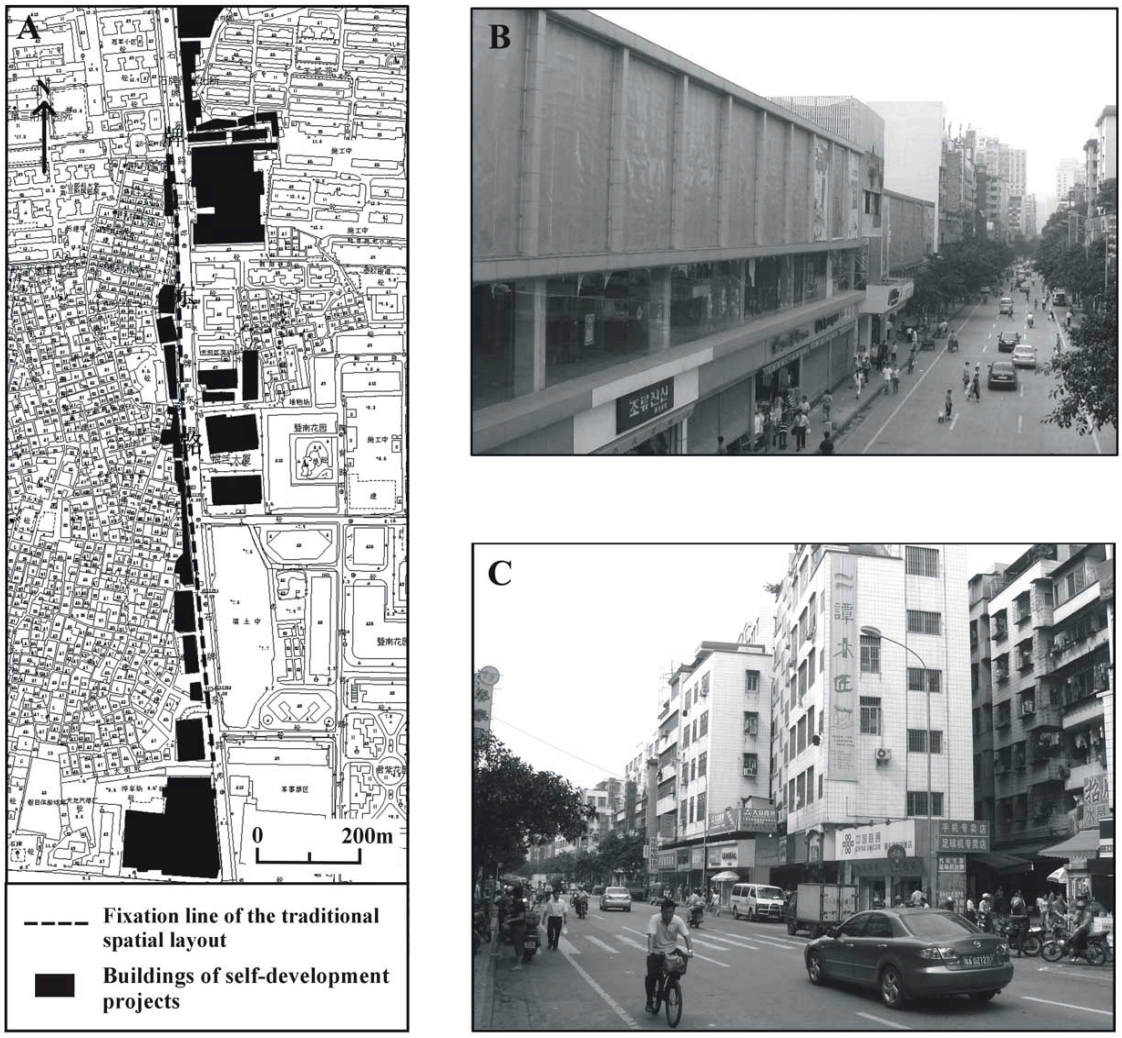

Figure 6. (A) Self-development projects on both sides of Shipai East Street; (B) Multi-storey commercial complexes on the east side of the street; (C) Buildings on the west side of the street. Based on authors' field survey (2007-2008).

the collective organizations each year. This informal co-operation has major advantages. On the one hand, for the investors, construction is much cheaper on collective land than on urban land, where there is a requirement to pay urban service and facility fees. The cheap housing of the villagers can also be used as warehouses and dormitories. On the other hand, the collective's income increases significantly without entailing a large investment risk. As a result, several 'computer towns' and shops have been constructed on small plots on the reserved land on both sides of Shipai West Street and at the northern border of the village.

The forms and characteristics of these types of collective projects are often comparable to those of urban areas, as they conform to similar criteria and instruments. Adjacent to urban roads and often limited by plot boundaries, a 'tower-podium' building, which combines commercial, residential and office functions, is common in these projects. A typical case is the Pacific Computer Town Ecomplex (*Taipingyang Diannaocheng*). Located at the north entrance of Shipai West Street, this consists of two buildings occupying both sides of the street and connected by a high-level corridor. The third floor of the podium is commonly used as an IT market,

while the floors above are for office use. With the success of IT shops and 'computer towns' the old infrastructure became inadequate to service the increasing volume of traffic. Shipai West Street was widened from a previous farm machinery road about 6 m across to a four-lane urban road of about 16 m in width in 1995. The project was co-financed by the collective organizations of Shipai village and the city government. However, even today the street remains overcrowded, as it functions not only as a parking place for the IT markets, but also as a main urban road.

Shipai East Street was also widened from a previous farm machinery road to a four-lane urban road to meet development demands. Today there are more than 100 shops (including clothes shops, restaurants and shopping malls) along the street. The majority of the structures are owned by the collective organizations. Influenced by the pre-existing farm-machinery roads, lanes, and plot and pond boundaries (Figure 2B), shallow buildings of varying widths have been constructed on the western side of the street (Figure 6A, C). These buildings usually have mixed functions, the ground floor being used for commercial activity and the upper floors for residential use. The building façades and materials are similar to those of the village settlement. However, this small secondary development has not extended to the other side of the street: there multi-storey commercial complexes have been created (Figure 6B). Thus the west side of the street might be seen as a fixation line (Conzen, 1969, p. 125), composed of either the tails or sides of various plots within the edge of the village settlement. The east side of the street, with distinct ground plan and architectural types, is outside the village settlement.

Supported by increasing income from the self-development projects, the collective organizations financed the construction of public buildings and the upgrading of infrastructure within the village. The dirt roads were replaced by concrete roads, with drainage alongside them. Several small alleyways were also widened and became village main roads. Some modern public buildings and spaces (including the elderly persons' activity centre, the village primary school and kindergarten, gardens, sports centres and a cultural activity centre) were constructed on empty collective land or former ponds, scattered within the village settlement (Figure 7B). Clan temples were renovated and protected by both the clans and the collective organizations.

Migrants and the densification of the village settlement

With the rapid development of the city of Guangzhou and the self-development of Shipai village since the 1990s, a massive influx of migrants to work in the computer towns and surrounding service sectors has taken place. However, the majority of them have been unable to acquire urban household registration (urban *hukou*) and have thus not had access to formal housing, education, employment and social welfare (Jie and Taubmann, 2002; Wu, 2005; Zhang, 2005). The city government recognizes them only as 'temporary' workers and assumes that they will eventually return to their places of origin. Village households that lost their farmlands during the urbanization process have used this as an opportunity to offer cheap housing to the migrants. Given the huge demand for housing and the relatively low supply, the quality of what is on offer has inevitably not been high. As the level of immigration continues to rise, the pressure to find space in the village has become extreme.

Building replacements, depending on the traditional spatial layout as their 'morphological frame', have occurred widely within the village. Three-storey brick and concrete buildings have been replaced by five- to eight-storey beam-framed buildings with cantilevered structures. The traditional courtyard has disappeared, while the new architectural façade is a mixture of indigenous and Western characteristics. Some buildings have Chinese curved roofs but Western ornaments on their walls. Many village main roads and alleyways have been blocked or narrowed by the newly-added constructions (Figure 7C). The 'hand-shake kissing buildings' street profile (with a

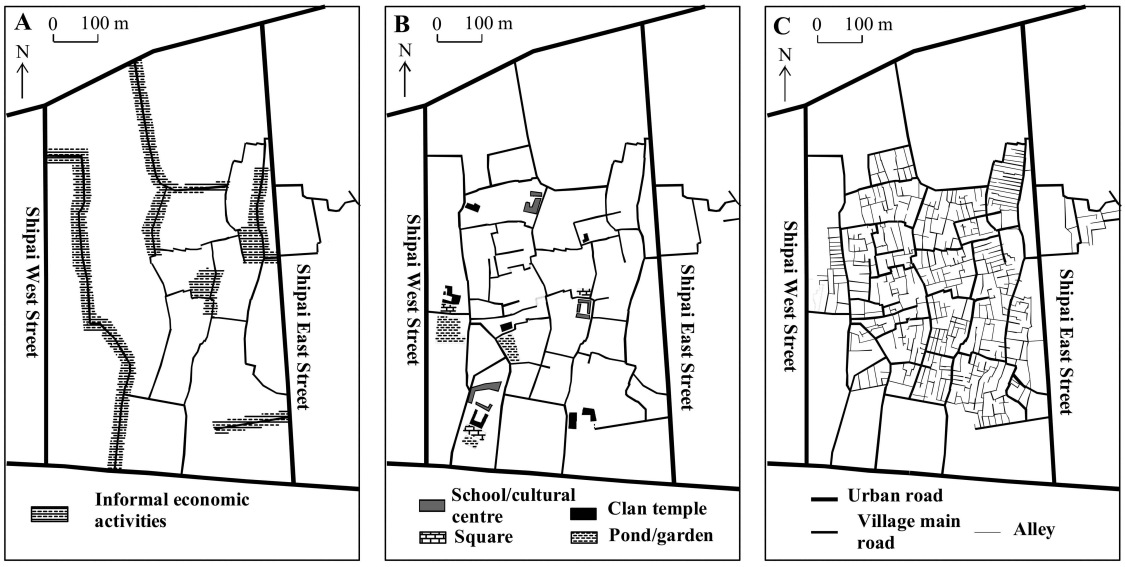

Figure 7. (A) Informal economic activity along village main roads; (B) Public spaces and facilities; (C) Road networks. Based on authors' field surveys (2007-2008) and *Annals of Shipai village* (Guangzhou Tianhe District Shipai Committee, 2003).

tiny distance between facing balconies) has become a characteristic new form (Figure 8). At this level of detail there are no regulations for development control in the ViC. The densification of the village settlement reflects both speculative development, driven by maximum profitability, and the demand for migrant housing. A house, with six floors each measuring a mere 8 by 10 m and often divided into four small units, frequently accommodates about 50 people. One block with an area of 1.57 ha has 80 such tiny dwellings crammed into it, consisting of 1900 small units and housing approximately 3800 people. Consequently, many rooms are without sunlight and have very poor ventilation.

As a result of these processes, Shipai village has become the densest ViC in Guangzhou, with a population density of over 100 000 people per km^2. Although the total area of the village is only 0.7 km^2, 3384 houses with a total floor area of 1 019 719 m^2, provide dormitories for some 75 000 migrants and about 10 000 villagers. Migrants have become the main inhabitants of Shipai village, with about 15 per cent engaged in small businesses. There are more than 1000 small shops (including restaurants, drugstores, supermarkets, electrical appliance stores and a shambles) concentrated in four open markets and several village main roads (Figures 7A and 9). The functioning of these shops is often reliant on informal social networks. However, they provide cheap daily services for migrants and villagers. Buildings have been changed to accommodate these new functions. The ground floors of villagers' houses, which were once utilized as living rooms with a small entrance and windows, have since been adapted for commercial use and transformed into shop-front buildings.

Villagers' apartment projects

As high density and overcrowding have led to deterioration of the residential environment, many village households have moved out and 'purchased' apartments from the collective company. Some of these new forms of housing are provided by the *anju* (decent living) projects on the reserved land or outside the village settlement. The projects have been encouraged by the governing bodies of the city, as they are planning to requisition the village settlement for new development, following the relocation of the villagers. Co-financed by the collective company and village

Figure 8. 'Kissing' housing profile (authors' photograph, 2008).

Figure 9. Small shops along a village main road (authors' photograph, 2008).

households, the first of these projects was finished in 2000: it occupies an area of 7508 m^2, and provides housing for 520 village households. It is a podium-tower building, with the ground and first floors for commercial use, the second floor for office use, and six separate residential towers above for villagers' apartments. Since 2001, a second project comprising three sub-projects, has been developed on the reserved land in Pearl River New Town (*Zhujiang Xincheng*). Two 30-storey high-rise buildings with underground parking have been constructed in each of the sub-projects.

Well connected to urban roads, the villagers' apartments are physically indistinguishable from other apartments. Nevertheless, the land is still owned by the collective and the apartments cannot, theoretically, be sold. These projects are more functionally orientated in their nature and based on Western rationality and logic, allowing the integration of different functions (dwelling, commerce, and open space) in both vertical and horizontal directions. The resulting street patterns and building types are clearly different from those of the village settlement.

A large-scale redevelopment project

Alongside the relocation of villagers, a large-scale redevelopment project has been in progress since 2004. Such projects are used as a marketing tool at the local level for the purpose of attracting investment. However, owing to the problem of overcrowding, informal and deficient spatial structure and high crime rates, ViCs are being criticized by public authorities and professionals for their negative impact on the modern image of the city (Zhao, 2008). City governments are planning to requisition the collective land of ViCs for new development (Zhongshan University Urban and Regional Research Centre, 2004).

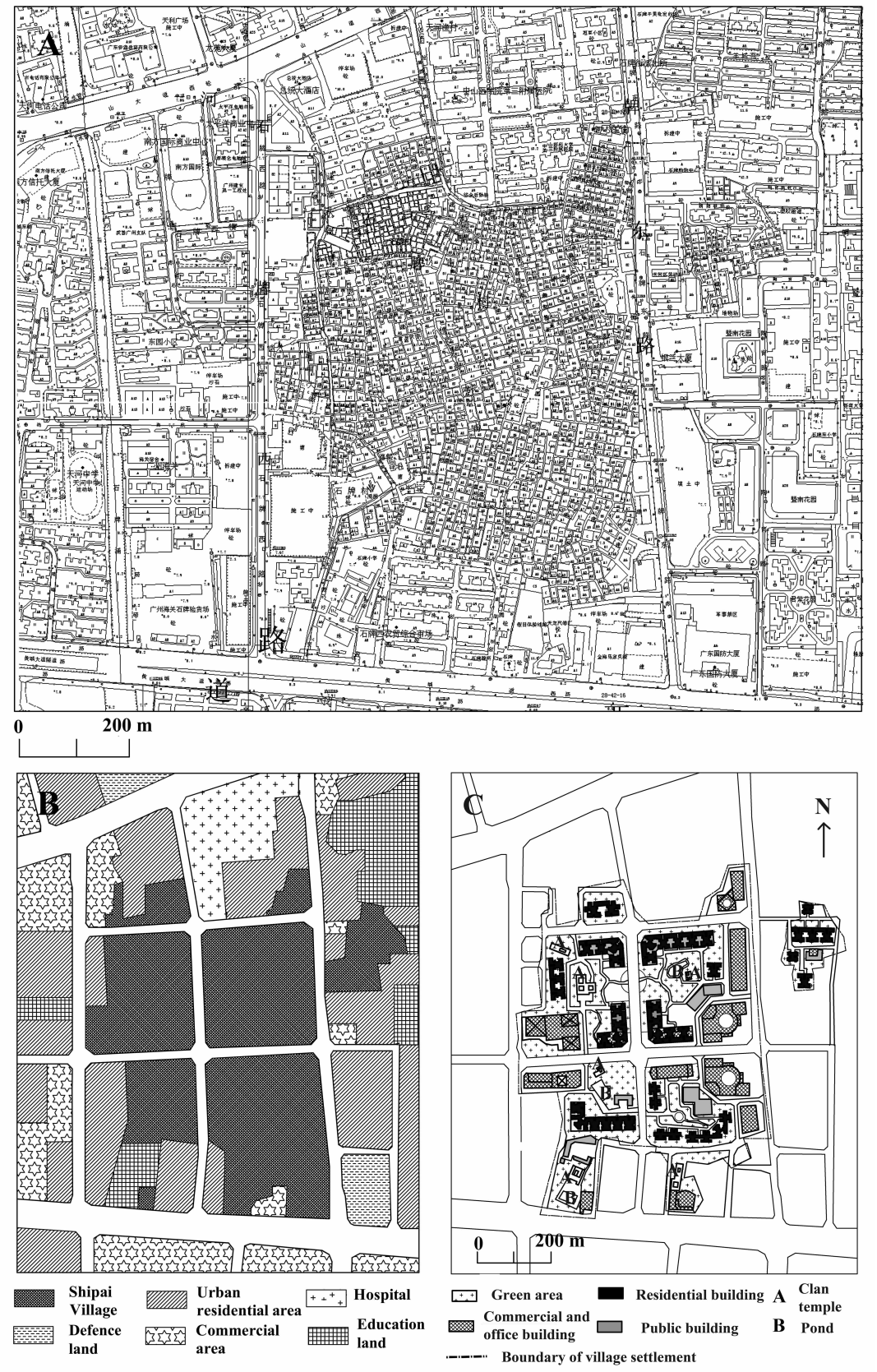

Figure 10. (A) Layout of Shipai village and surrounding urban areas. Based on an unpublished map of Guangzhou, 2006, prepared by Guangzhou Urban Planning Bureau; (B) Regulatory Planning of Guangzhou in 2006, prepared by Guangzhou Urban Planning Bureau; (C) Redevelopment Project of Shipai village (Zhongshan University Urban and Regional Research Centre, 2004).

To reduce the problem of overcrowding in Shipai West Street and promote further development of the village, Tianhe Economic and Trade Bureau drew up a project for the renewal and promotion of the IT wholesale market place of Shipai in 2003, so that it became an international wholesale market for IT products. The aim is to convert the village settlement into a mixture of modern residential areas, integrated commercial areas for IT products, other commercial-use areas, and public spaces (Zhongshan University Urban and Regional Research Centre, 2004) (Figure 10C). First, surviving small buildings will be replaced by skyscrapers for resettling villagers and for letting. Secondly, Shipai East Street will be enhanced as a district-level commercial street, with the construction of podium-tower buildings and large modern squares. Thirdly, a street next to Shipai West Street will be upgraded for parking, distribution, exhibition, restaurants, and so on. In addition, four clan temples will be preserved and expanded as centres for the villagers. About 35 per cent of the total area has been allocated as green or public space. The proposals are indicative of the fact that the city intends to 'normalize' the informal space of the village, integrating it into the general urban fabric.

However, this project has yet to be approved by the municipal government, owing mainly to the conflicts of interest among various stakeholders. According to the detailed plan of Tianhe District, three urban roads will pass through the village (Figure 10B). However, the city government will not invest in their construction and propose that the profits of the project should cover this expenditure. Furthermore, the village has not agreed to self-finance the project. To fund it, more commercial areas and office space (about 40 per cent of the total floor area) is planned, with a ratio of floor area to site area of 5.4 to 1.

The chief planner maintains that this project represents the best interests of the village (interview, 5 March 2008). The collective company is playing a key role in the decision-making, negotiations with planners, and communication with the villagers. Many meetings, attended by villagers' representatives, have been organized by both the planners and the collective company. Villagers' representatives are satisfied with the project, as rental income and collective property could be enhanced following the redevelopment. The district government approved the project, but at the time of writing the municipal planning bureau has not yet authorized it. One of the reasons for this is said to be that the municipal government distrusts the ViC.

This market-led redevelopment project would fundamentally destroy the existing spatial layout (Figure 10A), with its social networks, small-scale shopping streets, intimate public places, and opportunities for small businesses (Figure 7). The cheap, informal services (for example, warehouses, dormitories, and restaurants) would be replaced by expensive, formal urban services. The main land-use pattern, and local employment and amenities, which are crucial for low-income migrants, would also be lost. Without the cheap services and labour, it is not clear that the project would promote development of the area as a commercial centre for IT products.

Conclusion

Hitherto urban morphological research has been mainly undertaken in Western contexts, and its more developed concepts, such as the morphological frame and the morphological period, have rarely been explored in China. In this study of the morphological transformation of Shipai village in Guangzhou progress has been made in rectifying this deficiency.

The mosaic structure of what used to be the village (including the spatial forms of the village settlement, requisitioned land and reserved land) has been developed over time through the superimposition of different planning processes in different morphological periods. The layout of the traditional rural settlement, the field pattern and collective property boundaries served as a morphological frame for subsequent rapid development. Building replacements in the village settlement were inserted in the existing traditional layout.

The new building type accommodates more inhabitants by adding cantilevered constructions and new floors. Shipai East Street and Shipai West Street have been widened. The previous farm machinery roads have been converted into urban roads. In the development of the area adjacent to the village settlement the traditional spatial layout and the previous field pattern influenced strongly the new spatial pattern. The villagers' apartment projects, outside the village settlement, are examples of new forms created in a new morphological period.

The morphological transformation of Shipai village over time was greatly influenced by its changing management structures. These structures range from local 'grassroots' organizations to quasi-government (the brigade) and then to the collective company that combines economic, social and political functions. The emergence of new stakeholders has its impact, as does the changing relationship between the village and the city – from one of separation to one in which the village is encompassed by urban expansion. The interactions between key stakeholders operating in multiple networks, who invest in material projects and give meaning to the qualities of places, have played substantial roles in this morphological transformation process. Migrant households have contributed greatly to both city-development and self-development of the village. However, market-led redevelopment does not provide homes for such households. The existing spatial pattern can be seen as a container of social networks and economic opportunities. Whereas Shipai village is now characterized by the proximity of urban services, these advantages will be lost in the proposed formal redevelopment project. The state is to some extent reducing its role, as it is not compensating for the inequalities generated through market exchange (for example, by providing public services for low income migrants). Therefore, intensive co-operation between and co-production by different stakeholders (various levels of government, private sectors, institutions of the 'third realm', villager and migrant households) will probably be necessary in order to achieve a more sustainable redevelopment of Shipai in economic, political, social, cultural and spatial terms.

The morphological transformation of Shipai village demonstrates the importance of the roles and interrelations of key stakeholders. For this reason, it could be of interest to pursue a research approach that combines an evolutionary approach that traces existing forms back to the underlying formative processes (Conzen, 1969) with the 'urban project approach', in which the roles of and interrelations between stakeholders are a major concern. The two approaches would seem to be complementary. The former providing a historico-geographical reading of physical forms, while the latter is concerned with spatial interventions that come at 'a crucial juncture between past work on the existing city and the more down-to-earth future tasks of urban regeneration, infrastructure improvement and managing entire urban areas' (Masboungie, 2002). Research grounded in a synthesis of the historico-geographical dynamic of urban form and subsequent interventions by key stakeholders could provide a significant contribution to establishing both spatial cohesion and social equity.

Acknowledgements

Research for this article was sponsored by the Nuffic Fellowship in the Netherlands. The authors are grateful to colleagues in the Urban and Regional Research Centre, Zhongshan University and the School of Architecture, South China University of Technology for their insights. The assistance and constructive comments of Derry O'Connell, Kees Doevendans, officials in Guangzhou Urban Planning Bureau, and the anonymous reviewers are also gratefully acknowledged.

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