**Resisting motorization in Guangzhou**

by

John Zacharias

Department of Geography, Planning and Environment

Concordia University

Montreal (Quebec) Canada H3G 1M8

e-mail: [zachar@alcor.concordia.ca](mailto:zachar@alcor.concordia.ca)

tel: 01-514-848-2424 x 2058

fax: 01-514-848-2032

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**Abstract**

Private motorization has accompanied unprecedented urbanization in China, as a matter of public policy. Planning at the provincial and city levels has supported the rapid build-up of the private car fleet in major cities through the development of regional and urban highway networks, higher capacity local streets and much higher standards for car parking in new developments. By contrast, urban planning until 1994 concentrated on the building of community and the support for a non-motorized lifestyle. Guangzhou experienced particularly rapid city-building during this period because it was at the centre of the market reforms launched in 1978. The communities that were built form a broad ring around the historic core of the city, constituting one of the most significant obstacles to government ambitions to maintain the recent growth rates in car ownership. Guangyuan and Jiangnanxi are examples of such middle-class, home-owning communities where daily life remains almost exclusively non-motorized. Self-organized groups in the community are increasingly vocal and active in their demands to enhance local environmental quality and restrict local motorization. Local municipal authorities, although increasingly active and autonomous, try to strike a balance between government objectives and local demands. The application of motorization illustrates the growing gap between high-level policy and grassroots urban planning in Guangzhou.

**Introduction**

Private car fleets in the most developed cities of China continue to grow more rapidly than urban populations at the end of the first decade of the millenium. Support for a domestic car industry and market includes a complex web of interconnected policies directly affecting both producers and consumers, beginning with the highest levels of policy-making in the country. Provincial and regional plans feature a massive build-up of intercity expressways, while cities continue to build high-capacity networks to serve internal needs, while connecting with regional and inter-regional systems. At about 200 cars per thousand people today in Guangzhou, the local government would like to see the car ownership rate continue to rise. Leaders recognize the positive contributions of a vigorous local car culture to GDP, coming from domestic consumption and government expenditures to build the infrastructure. Generous provisions for car users in new developments of Guangzhou built since 2000 are virtually universal. It is much less clear how the car fleet can be grown in that part of the city built up before 2000, which is most of the physical area of the city housing the majority of its population. To allow much higher levels of car ownership and use, rebuilding the local environment would be necessary to store the cars and a much denser and higher capacity local road network would be needed to carry them. Such a program of demolition and reconstruction has recently been announced (Guangzhou Government, 2011) but there are already suggestions from official levels that the urban renewal program will not stop with the village replacement program which officially runs to 2020. The next round of renewal would likely involve the city area built up since market reforms until about 2000, a ring around the historic core of the city several kilometres deep.

How are government proposals received in those districts of the city that were not designed to accommodate privately owned cars? In the cases described in this article, motorization levels are exceptionally low and are increasing only very slightly. A legacy of urban planning of the 1980s, this vast area of the inner city consists of large, mixed-use areas largely inaccessible by car and where the numbers of pedestrians and non-motorized vehicles have continued to rise. Rather than accommodating parked or circulating vehicles, local organizations are actively reducing space allocated to motor vehicles or are attempting to exercise more control over car movement. In effect, there are no personal car parking spaces, so that ownership would require acquisition of an off-site garage space, which tend to be few and at a premium. While accommodations are theoretically possible to allow the conversion of public space and gardens into parking, such ideas are rejected out of hand by all the local organizations. What community members see as a defence of fundamental environmental and social values involves non-participation in a program of household car acquisition. That resistance takes a number of forms, including an increasingly vigorous and public debate between unofficial bodies within the communities and the municipal government.

How is it that local communities have become so engaged? Urban planning since economic reforms favours a large and internally integrated spatial unit that has its roots in the now defunct work unit (*danwei*). Until the mid-1990s, these areas were conceived as non-motorized, highly serviced environments that have had a powerful structuring effect on daily life within those local areas. The large number of plans implemented around the same time adhered to the same principles of high levels of service and much attention paid to light, air and green space. Successive waves of home-owners and residents adapted to the spaces and routines suggested by the spatial arrangements and affordances of these set-piece designs, reproducing the community and launching a succession of improvement projects. An increasingly active local population has engaged with the government on issues they see as fundamental, particularly those impacting on the public realm. Their collective space as a largely non-motorized realm, is vigorously defended locally, with some debates filtering up to the district level. While the outcomes from this negotiated future remain fuzzy, the cases offer themselves as models of achievement of a particular kind, for their scale and for their important impact on transportation facility demand.

**Methods**

In the next section, background on the present non-motorization effort is provided. Firstly, the urban planning model associated with the *danwei* is reviewed, because it is so ubiquitous in the central city. The government-driven motorization drive is recounted in order to understand the pressures this policy exerts on existing patterns of local life in cities and specifically on local spatial planning. Community responses to top-down policies are considered in light of administrative changes and growing activism on environmental questions generally. This background is supported by a review of the recent literature in each of these three areas.

The local use patterns that came to invest these planned developments are presented next, to understand the nature of the local space that the communities are defending and how such use patterns are closely related to the provisions of the original plan. Structured observation provide the data on public space use, as well as motorized and non-motorized travel. Streets and open spaces are then characterized by the levels of human activity. The government-sponsored local improvement projects during the 2000 decade were researched through interviews with government agents and through archival research in government offices to understand the objectives, the funding source and the process. At the community level, interviews were carried out with active members of the Resident Committees and volunteer organizations. Semi-structured interviews were carried out with an opportunity sample of respondents of about 30 individuals in each community to gauge how they received the government projects and how local people evaluate government policies including motorization and public space management. Several shop-owners were also interviewed in each project, with regard to the government-sponsored projects. The resistance effort is documented from formal records, informal street interviews and instances of direct manipulation of the environment by community-based groups. The Discussion is concerned with the implications of the disconnect between community-based urbanism and the intentions embedded in the transportation plan. Overall, we draw the conclusion that these communities are exemplary in certain respects, although an unclear fit with local transportation ambitions.

**Urban planning policy and local community response**

The planned communities of 1980s and 1990s are a result of a government policy in favour of urban planning units on the model of the *danwei*. However, government policy in the last decade favours a more motorized environment and is critical of the legacy of the earlier decades. Urban communities, like their rural counterparts, are increasingly vocal in expressing their own wishes for their community, which are not always in harmony with government policy, as in the present case. The following three sub-sections deal with these background elements that help situate the grassroots urbanism evident in these established urban districts.

*The physical legacy of the danwei*

Central government creation of the urban work unit, or *danwei*, in support of the effort to industrialize the country, also accompanied a new urban spatial order. The pre-Revolution urban fabric offered no suitable model for Communism’s social and economic plan. Official and professional preference for urban planning by local spatial units that began to permeate Chinese practice in the mid-1950s borrowed much from advanced international thinking on the topic (Lu, 2006). The vision of greater local autonomy, community-mindedness and high service levels, all within a highly ordered spatial plan that emphasized large, local units also became reality for more than two decades. The abandonment of the *danwei* model of economic organization in 1982 did not entail the abandonment of the spatial concept that accompanied its rise, quite the opposite. The amenities and environmental qualities that were an integral part of the local spatial plan became minimum expectations in the rapidly developing housing market (Forrest and Yip, 2007). Private developers felt obliged to fulfill those expectations, while infilling proceeded over the whole swath of 1980s and 1990s city.

The spatial model of *danwei*-era planning deserves attention for its impact on city form and contemporary urban planning. At the very heart of the *danwei* spatial system is a non-motorized and highly connected ground space that is given over to human activity. Local community facilities are integrated into the living habitat, which also hosts local commercial activity. There are many dedicated public gathering places, leisure and fitness facilities and hard-surfaced areas for active recreation and bicycle storage facilities. The layout is aimed at shortest possible routes to destinations and along easy routes without barriers. A host of community-based services and shared facilities at central locations tend to create very clear spatial patterns of movement and a lot of sharing.

*The promotion of motorization*

In the first years following market reforms, Guangzhou was the first major Chinese city to experience hyper growth. Growth accompanied expansion (Li and Li, 2006) into the former farming lands forming a long ribbon to the north of the Pearl River, and already a mix of villages, industries and institutions. The succession of masterplans showed a relatively compact expansion of the original core of the city, while attempting to accommodate the rapid growth in population and production facilities in the 1980s (Xu and Yeh, 2003; Wu, 1998). Urban planning in the 1980s conceived of daily life as largely human-powered, with the necessary density, population and services to make it possible. Longer commuting distance after market reforms led to the rapid increase in bicycles on the major roads. The bicycles were largely squeezed out by motorcycles in the thickening traffic, but have since increased in use along with walking.

In the most recent decade, travel distances and travel times have continued to edge upward, placing increasing demands on the public transportation system in particular. At the same time, an increasing proportion of home-to-work trips are within the same district, 70% of all commuting trips in the case of the inner districts (Li, 2010). Since few working residents in these communities require a car for commuting, and with commuting distances averaging just over 5 km, there must be other reasons for car acquisition in these areas. Rapid motorization over the 2000 decade applied significant pressure to this vision of a community-occupied and managed open space resource that constituted the entire ground plan of an area of thirty or more hectares. Overall in Guangzhou the car ownership rate reached levels near those of some European countries. Rising car ownership accompanied, if it was not actually made necessary, by the particularly fragmented peripheral development of the 1990s and later. The ‘leap-frog’ development (Xu and Yeh, 2003) that took up a disproportionate amount of former productive farmland, also produced a boom in commuting travel by private car (Cao et al, 2009). Although the vehicle fleet growth rate remains in the double-digits year on year, the landscapes of motorization are increasingly disarticulated from the core city districts of Liwan, Yuexiu, Tianhe, Haidan and Baiyun.

This city was a pioneer in securing substantial World Bank funding for completion of the raised, express Inner Ring Road, whose avowed purpose was an increase in road capacity (World Bank, 1996) and improvement in efficiency overall. A reduction in bicycle use accompanied an increasingly separated pedestrian realm of bridges and walkways. In spite of these substantial efforts at Shenzhen-style modernization (Zacharias and Tong, 2010), Guangzhou ‘lagged’ far behind. Guangzhou’s economic growth was also more modest compared with its nearest neighbour. The link between economic growth and car ownership is constantly made both by lobby groups (e.g. GAGC, 2008) and the government itself, while economic growth now drives the master plan process (Wu, 2007). Official views published in the government media have increased lately in response to more discussion overall on the topic of urban transportation. For example, in early 2011, Guangdong provincial governor, Huang Huahua made the following statement when asked about the possible need for new measures to curb traffic congestion in Guangzhou,

‘Guangdong will not copy Beijing's practice of limiting vehicle registration, because allowing more residents to own private cars is part of the provincial government's campaign to build a 'happy Guangdong province'. Residents may better realize happiness after they have purchased their own cars, and owning a car indicates a person or a family has become rich.’ (Zheng, 2011)

Also in early 2011, Guangzhou Municipal Transport Commission Director, Xian Weixiong suggested that increased car ownership is tantamount to societal progress. He advocates the development of more road capacity and the removal of charges on parking (Scoble, 2011). Both of these senior officials and others were responding to questions about the apparently salutary effects of reduced rights to drive during the Asian Games. Other officials have lamented that Guangzhou lags behind Beijing in the rate of car ownership. In recognition of the substantial obstacle represented by the post-reform urban development up to 2000, some officials have even called for the complete demolition and reconstruction of all those urban areas.

Meanwhile the Guangzhou Urban Renewal Office announced in early 2011 a list of 138 urban villages to be razed and rebuilt (gz.gov.cn-11 January). The area encompassed by these villages is nearly 90 km2. The replacement plans incorporate the road systems foreseen in a larger networked vision of Guangzhou. The urban villages, which house a substantial proportion of the population of the city, especially those at the lowest income levels, are entirely non-motorized environments and heavily dependent on the public transport system.

*Community push-back*

When the first wave of commodified housing arrived on the market in the early 1980s, the model remained *danwei* housing, where all social and educational facilities of any local significance were organized as part of the housing compound. In order to be competitive, those first for-purchase developments incorporated the schools and community facilities, shops, entertainment and public transportation that house-buyers were seeking (Forrest and Yip, 2007). Those features were apparently related to the generally strong feelings of belongingness exhibited by residents of the *danwei*-type housing of our study areas a generation later.

The perpetuation of the *danwei* neighbourhood model accompanied the introduction of a reformed system of local administration. The national government introduced the Law on Urban Resident Committee Organization (1989), which reinforced the powers of the street committee over a new territorial unit known as the *shequ* (Xu, 2008). Not only was it intended to create an administrative unit more in keeping with the mixed housing tenure environment, but to download an increasing number of responsibilities and services to the local level. This new local administrative system has accompanied a surge in local activism. While the street committee and its territorial equivalent in the *shequ* encouraged local involvement, new tensions arose between administrators and community members. The Street Committee (*jiedao weiyuanhui,* SC) members are paid employees of the municipal district government and responsible to officials. Local Resident Committees (RC) communicate directly with the SCs, but their actions are also sometimes contested by local inhabitants who feel that the RCs are closer to government than to the residents. New informal associations have emerged to represent the interests of home-owners, tenants and shop owners, who often express views at variance with the official view. As was seen in our case studies of Jiangnanxi and Guangyuan, the SCs and to some extent the RCs seek to implement policy decisions reached at the municipal level first (*shi*) and then the district level (*qu*). In both case studies, recent policy initiatives of the SC were hotly contested by locals, who voiced their opposition through their own informal organizations or by direct intervention.

The surge in rights-based collective action at the local level has been seen as a response to a failure to guarantee legal entitlements (Read, 2003). An extremely complex system for legal contestation or petitioning, as well as the inherent risks in challenging the authority of local government, encouraged a unionist stance on the part of locals. A disconnect between the contemporary lifestyle marketed by developers and the sustained interests of locals, including erstwhile buyers, has also led to resident radicalization (Zhu and Chao, 2007-8). As we will see in our local cases, opposition to certain policies downloaded from the municipal and district levels was voiced but such policies were also thwarted through direct action.

In general in China, environmental activism is on the rapid rise (van Rooij, 2010). The diffuse and interrelated set of environmental stresses in urban environments requires a particular approach on the part of local activists. Opposition is channeled to local government, especially the street committee, but also developers retaining operational control of their housing projects. The current activism of the local urban scale in major cities, including Guangzhou, is also a consequence of a well-publicized history of conflictual relations between residents of inner city urban land and a municipal government bent on redevelopment of that land. ‘Lawful resistance’, demanding redress through official channels, has proven to be successful in the case of dispossessed home-owners in Beijing (Hsing, 2010). Public meetings, poster campaigns and ‘spontaneous’ demonstrations provide other measures that can be employed with relative impunity locally, exerting pressure on authorities while operating at the margins of tolerance. Occasional spectacular confrontations between local residents and municipal authorities, their developer partners or hired eviction specialists are widely reported in the Chinese media. If such sometimes violent confrontations constitute one extreme of the continuum, the environmental activism of local urban communities in Guangzhou is relatively benign and arguably within the intentions of the law, as vocal local activists claim (Zhu and Chao, 2007-8).

**Daily life and local planning in Jiangnanxi and Guangyuan**

The physical and spatial aspects of 1980s and 1990s urban developments have received relatively little attention although they are a unique outcome of Chinese urbanism of those decades. A brief presentation of the communities and the daily use patterns that are the core of the communities’ present urban planning efforts also helps supply a rationale for community activism.

Jiangnanxi is located in Haidan district south of the Pearl River, an area that was long prone to flooding and is actually made up of three communities (*xiaoqu*). The urban plan for this community of 75,000 was prepared by the Guangzhou City Construction and Development Property Company, then a small residential developer. The 62-hectare site was split by Jiangnanxi Lu, a processional avenue lined with shops and marked by towers at each end, to provide the link the city demanded between the other major roads bounding the site. The resulting two “halves” of the community were organized around an equipped civic square and community centre. The square was located next to a market street for vendors. The street hierarchy within the project has no fewer than five levels, starting with the processional avenue, and proceeding down to non-motorized lanes and pedestrian walkways. These “streets” form a highly connected web over the whole site, with passage possible around virtually all buildings. The buildings themselves tend to be close to the ground but with relatively small footprints, which ensure that there are many and varied open spaces. The four neighbourhoods of the Jiangnanxi community each has an elementary school. In addition, the community is adjacent to a Middle school. A major community hospital is about ten minutes away on foot from the edge of the community as is a major public park. The perimeter streets as well as Jiangnanxi Lu itself have continuous shopping frontage as well as shopping centres.

Guangyuan is also made up of three communities in Baiyuan district–Guangyuan, Jingtai and Yunyuan communities–all planned about the same time in the mid-1980s and built by two private development companies and a province-owned corporation. As in Jiangnanxi, the plan is largely concerned with the development of a residential community with all related facilities. A pedestrian street, public open space and related community facilities are located at the geographic centre of the area, with many local parks within the residential enclaves. Local commercial activity is planned in each local community, along with schools, community centres and local city administrative offices. Construction of the whole area of 43 hectares was completed by 1989, when its administration was turned over to the Jingtai Street Committee (JSC).

*What the communities are defending–a non-motorized, human environment*

The very high levels of non-motorized movement and public activity recorded here serve to contextualize the interventions of the government and the locals. Figure 1 shows Jiangnanxi in relation to the immediate context, in particular the wide range of services available at very short distance from home. In the case of Guangyuan, more such services are internalized in the development. Clearly, these communities were models for bringing a wide range of city services together in an environment traversable on foot.

Figure 2 compares the distribution of pedestrian, non-motorized vehicle and car movements for the two cases. The pedestrian flow is surprisingly high for a predominantly residential community, approaching the levels associated with pedestrian streets in the centres of some European cities. The pedestrian flows support an activity system within the communities, with particular locations taken up by regular activity such as tai chi, dance, mahjong, table tennis, roller-blading, among other activities. In the last decade, ground-floor flats adjacent to the important pedestrian flows have converted to commercial uses, for a total of 774 businesses in Jiangnanxi, 702 in Guangyuan. Although there has been debate in the past over the desirability of this commercialization, community members were all cautiously supportive of the change. People pointed to agreements that had been reached between the restaurant and bar operators and the residents. The comparable car movements are also shown for the two communities, revealing the extent to which the private car is marginalized. While it is possible to circulate around the perimeter of these communities, it is impossible to drive across at any point. The present distribution of car movements is revealing of the efforts of the local community in controlling the incursion of cars, recounted in the later section on community activism. There are just 123 official car parking spaces on the ground in the Jiangnanxi community, or one space for every 600 residents.

A tally of all people and vehicles moving at one time in the community is used to estimate the modal split within Jiangnanxi and Guangyuan (figure 3). It will be seen that the vast majority of local movements are on foot, followed by movements by bicycle and three-wheeler. The considerable number of three-wheelers reflect the opportunity for service deliveries within the areas. Bicycles have increased in use recently as the road environment improved for non-motorized traffic, particularly following the motorcycle ban (ITDP, 2009), hence the demand for additional shelters in Guangyuan.

Jiangnanxi is now served by one metro line and 12 bus stations, while Guangyuan is served by 10 bus stations and an internal mini-bus system. While mobility has continued to rise across the whole urban population, it has not translated into significant car use in the local environment.

*Community relations with municipal government*

The SC is charged with resolving differences between municipal directives that the SC is mandated to implement, and demands coming from the RCs, commercial operators and informal pressure groups. As the lowest level of the city administration, they process administrative decisions and manage a growing local budget for public projects. RCs communicate officially with the SC, although the RCs are only a part of a larger informal apparatus of organizations. Almost immediately after the hand-over of administration from the development companies to the Jingtai Street Committee (JSC), informal home-owner groups began to emerge to press their interests. Local wishes expressed through these informal channels to the street committee have sometimes been effective. Several examples help illustrate the cooperative and adversarial aspects of this relationship. For instance, bicycle storage sheds had not been included in most of Guangyuan. To help organize the bicycle parking and provide shelter, structures were built simultaneously by several local, self-organized committees. The locals acted without permit. When Baiyun District officers demanded their demolition, the JSC intervened in favour of granting the structures amnesty.

A second example concerned the handling of the potentially controversial conversion of residential space to commercial uses. Spontaneous conversion of groundfloor premises in the early 2000s received a lot of regulatory attention by district authorities over the 2000 decade. The JSC championed the expansion of the Jingtai street market to 180 outlets and also proceeded to organize a night market of 150 stalls, all in recognition of continually rising pedestrian movement in the area, particularly during leisure hours. To deal with the groundswell of discontent with the increasing incursion of motor vehicles, the JSC undertook a major program of road improvements that continues in 2011. Bollards were installed along many streets to prevent random car parking on the sidewalks. New parking regulations restricted or banned parked cars next to residential buildings, making it virtually impossible to store a car in most of the community. Internal roads were narrowed with greatly reduced turning radius to prevent trucks from entering and to make it difficult to circulate in a car within the development. Space given over to pedestrians has been continually enlarged and repaved with porous bricks. The street committee also authorized the re-introduction of rickshaws to replace the banned motorcycle taxis, that now figure heavily in the counts of human-powered vehicles (figure 2c).

While this recent improvement program is ambitious and comprehensive, local citizens often expressed the opinion that it does not go far enough. The Yunyuan community began constructing barriers and administration booths to control car access in 2007, shortly after the motorcycle ban. Local commercial activity and an increasingly lively public environment instigated locals to manage the growing influx of vehicles. The municipal authority intervened and demolished the structures. Weeks later, the community rebuilt the barriers and administration booths but in less obvious locations. The JSC once again ordered the demolition of all the structures. Home-made barriers and bollards continue to appear, while the shop operators and residents have colonized the newly paved pedestrian ways with unauthorized commercial and leisure activities.

Before the current focus on streetworks and qualities of the public environment, the JSC had addressed basic issues of sanitation and maintenance. The JSC coordinated a large effort to clear streambanks of unauthorized structures and carried out the development of the Santai park on top of the Jingtai Chong stream. The JSC promoted the founding of two additional primary schools and the expansion of the middle school, but also employment opportunities in a garment factory. The last decade was more concerned with land use change, public space improvements, and management of the car.

In Jiangnanxi as in Guangyuan, the streetworks were accelerated by the 2010 Asian Games, along with a façade decoration program that would tackle building faces likely to be seen from major roads. The streetworks received a mixed review from local people interviewed at the work sites. The elaborate and carefully finished landscaping did not support the levels of public activity of the previous designs, which shop-owners reported having a negative impact on their business. As at Guangyuan, some members of the local community did not believe the Street Committee went far enough in managing the increasing number of cars. Home-made bollards and barriers “complete” the contracted works undertaken by the municipal government (figure 4).

The most vociferous debate raged over the gating of the Jiangnan community. With instructions from the district and beyond, the Jiangnanzhongjie Street Committee implemented barriers and lockable gates around some of Jiangnanxi. Required for security reasons, local people do not feel that the gating improved security, while security itself did not figure at the top of their concerns. Residents complained that their paths to the bus and the major streets were made much longer as a consequence. The gates had a disastrous impact on shops that had located with the community’s consent, on the little lanes and side-streets through the community. The gated areas were deserted where there had been lively public life before, with a retreat toward those public areas with open access. A variety of guerrilla tactics rendered the gate locks useless or provided makeshift steps to climb over the iron fence. At public meetings held to discuss the gating project, the RCs voted unanimously and on more than one occasion to stop the gating plan, but the Street Committee persisted. Certain residents saw a relationship between gating and incipient car parking in areas vacated by pedestrians and cyclists.

Haidan district is also contemplating the pedestrianization of Jiangnanxi Lu. Local informants were generally supportive of such a plan, recognizing how this central street in the community has become an important people place in the district and in the city. In public meetings to discuss the issue and when asked on the street, people were worried that the traffic now on Jiangnanxi Lu will be displaced into their community. So far, the approach of the local community has been to demand frequent and safe pedestrian crossings, which are at a much higher standard than those seen in other neighbourhoods. Mr Na Li, secretary of the SC, worried about the traffic jam that might be generated by a pedestrian street and repeated the often-heard comment that more parking lots were needed. Talks continue on the pedestrianization plan.

**Discussion**

So far, the discourse on modernization of the 1980s and 1990s city has centred on large-scale urban renewal rather than some form of retrofit of the existing environment to accommodate the car. While public statements emphasize the modernization of the urban fabric, urban renewal also offers the opportunity to extract substantial new revenues. The “creative destruction” of historical fabric has well-recognized benefits for municipal finances since they are essentially called on to act as intermediaries for a second round of capital investment in a discounted urban fabric. It is difficult to separate the transportation and fiscal issues as cities look to new sources of revenue. In the meantime, property values have risen in these 1980s communities that now find themselves well connected by public transportation and enjoying relatively good local environments.

At present, these communities have already achieved levels of non-motorization and low-energy consumption that remain only a distant dream in many advanced societies. As living standards continued to rise in these neighbourhoods, along with the market value of the properties, daily life did not change all that much. The very features that attracted young families there in the first place have continued to attract them, leading to the construction of new schools, for example. The local habitat perpetuated itself largely through daily life and direct interventions in the environment by inhabitants. This grassroots urbanism favours the evolution of the *danwei*-era planning system and a city of distinct local districts. As has been seen in the plans for the urban renewal of villages, new road infrastructure figures prominently in the plans for these areas, presumably to accommodate the larger number of cars that would then be housed within the reformed area. The *danwei* forms may act as an obstacle to such reforms, but also contribute little to their need.

The *danwei*-type form that characterized so much of the city, particularly Guangzhou, is itself a determining factor in the persistence of non-motorization in these areas of the city. Not only is this space physically unreformable, but has also galvanized the local community in a time when all the formal structures that used to bind the *danwei* together are gone. The local community is increasingly involved in the planning and management of the space, as a consequence of perceived threat from outside and the possibilities afforded by municipal administrative reform. Will this grassroots urbanism work its way up through the decision-making chain? What would such development mean for the long-term sustainable planning of central Guangzhou? Alternatively, will government act on its stated intention to pursue a renewal of the whole urban fabric in favour of a high-capacity, integrated citywide road system?

**Conclusion**

A major obstacle in the pursuit of a motorized Guangzhou is the city itself, an amalgamation of historical fabric, urban villages and conversions from institutional and agricultural use to urban uses. This dense fabric of varied urban habitats is a highly structured and densely built environment that is unreformable for the purposes of a car culture. Built out at densities from 2.0 to 2.7 floor-area ratio, they are already at the ceilings reached in new developments in Shanghai, for example, a city with relatively high residential densities in Mainland China. The local community has embraced the lifestyle possibilities offered by this planned environment through more than two generations of residents.

The motorcycle played an interesting role in the recent demotorization efforts. The pervasiveness of motorcycles in the early 1990s was difficult to control in local areas that were ill-adapted to accommodate them. When the motorcycles were finally banned in 2007 (Deng et al, 2009), the community returned in force to reclaim the territory for living. Changes in land use followed a general rise in the pedestrian activity in the local streets in these communities, that became reinforced and eventually highly structured, as suggested by the strict hierarchy of paths in the distribution of pedestrians by street (figure 2b).

Local groups have become increasingly well organized to carry out self-initiated plans for local improvement. In some cases, the Resident Committees cooperate with the Street Committee initiatives, organizing work crews, managing the street environment and providing local knowledge. The models, projects, working methods and outcomes vary considerably across communities and organizations but these locally initiated projects have tended to singularly support a vision of a non-motorized district. It remains unclear how the car could be introduced locally in such areas in any significant numbers in relation to the populations. Recall that the groundspace in these projects per resident is about 8 m2, whereas a single car parking space requires 22.3 m2. While these communities fend off threats, perceived or real, from general motorization in Guangzhou, they make a substantial contribution to reducing demand on the road system. As such, they make a real contribution to a different vision of Guangzhou than that imagined by its leaders.

**References**

Cao, Xiaoshu, Chen, Hemei, Li, Linna, Zhen, Feng (2009). Private car travel characteristics and influencing factors in Chinese cities–a case study of Guangzhou in Guangdong, China. *Chinese Geographical Science*, 19, 4, 325-332.

Forrest, Ray and Yip, Ngai-Ming (2007). Neighbourhood and neighbouring in contemporary Guangzhou. *Journal of Contemporary China*, 16, 50, 47-64.

Guangzhou Automobile Group (2008). A general introduction to the automotive industry in Guangzhou (Canton). <http://www.anfia.it/allegati_contenuti/GAIC.pdf>. Downloaded 2011-03-12.

Guangzhou Government (2011). 138 urban villages to be renovated by 2020. http://www.gz.gov.cn. Downloaded: 2011-01-11.

Hsing, You-tien (2010). *The great transformation, politics of land and property in China*. Chap. 3: Grassroots resistance: property rights and residents’ rights. Oxford Scholarship Online, 60-89.

Institute of Transportation Development Policy (2009). Best rpactices on regulation and design for motorized and non-motorized two and three wheelers in urban traffic. Draft final October 2009. New York: ITDP. <http://cleanairinitiative.org/portal/system/files/23_Wheeler_Best_Practices_DraftFinal_22Oct09.pdf>. Downloaded 2011-03-12.

Li, Si-Ming and Li, Limei (2006). Life course and housing tenure change in urban China: a study of Guangzhou

Li, Si-Ming and Wang, Donggen (2003). ‘Life course and residential mobility in Guangzhou’, Centre for China Urban and Regional Studies, Hong Kong Baptist University, Occasional Paper 39.

Li, Si-Ming and Li, Limei (2006). Life course and housing tenure change in Urban China: a study of Guang zhou. Housing Studies, 21, 5, 653-670.

Lu, Duanfang (2006). *Remaking Chinese urban form: modernity, scarcity and space, 1949-2005*. London and New York: Routledge.

Read, Benjamin (2003). State social networks and citizens in China’s urban neighborhoods. Unpublished Ph.D. Thesis, Harvard University.

Scoble, Rose (2011). Guangzhou’s traffic cure: limit vehicle usage not amount. *Economic Observer*, 4 January. <http://www.eeo.com.cn/ens/>. Downloaded 2011-03-07.

Si-Ming Li (2010). Evolving residential and employment locations and patterns of commuting under hyper growth: the case of Guangzhou, China. Urban Studies, 47, 8, 1643-1661.

Van Rooij, Benjamin (2010). The people vs. pollution: understanding citizen action against pollution in China. *Journal of Contemporary China*, 19, 63, 55-77.

Wu, Fulong (1998). The new structure of building provision and the transformation of the urban landscape in metropolitan Guangzhou, China. *Urban Studies*, 35, 2, 259-283.

Wu, Fulong (2007). Re-orientation of the city plan: strategic planning and design competition in China. *Geoforum*, 38, 379-392.

Xu, Feng (2008). Gated communities and migrant enclaves: the conundrum for building ‘harmonious community/*shequ*’. *Journal of Contemporary China*, 17, 57, 633-651.

Xu, Jiang and Yeh, Anthony G.O. (2003). Guangzhou: city profile. *Cities*, 20, 5, 361-374.

Zacharias, J. and Teng, Y. (2010). Restructuring and repositioning Shenzhen, China’s new mega city. *Progress in Planning*, 73, 209-249.

Zheng, Caixiong (2011) Guangzhou to curb government car use. *China Daily*, 24 January, 2011. <http://usa.chinadaily.com.cn/>. Downloaded 2011-01-24.

Zheng, Caixiong (2011). Guangzhou to curb government car usage.

Zhu, Jiangang and Chao, Wang (2007-8). Seniors defending their rights. *Chinese Sociology and Anthropology*, 40, 2, 5-34.

**Figure captions:**

Figure 1. The local context for Jiangnanxi in Haidan district in Guangzhou several primary and Middle schools, hospitals, community facilities and local shopping areas, all within walking or cycling distance.

Figure 2. Counts of all people and vehicles were carried out on several days in Guangyuan (top row) and Jiangnanxi (bottom row). The figure shows the mean flows in the late afternoon on weekends. Figure-ground plans are shown in a). Pedestrian flows (b), non-motorized vehicles (c) and motorized vehicles (d) are shown on the movement network. The busiest streets for all movements are market locations.

Figure 3. The modal split for the two communities is shown, based on the enumeration of people and vehicles on weekend afternoons, corresponding with the data displayed in Figure 2.

Figure 4. A succession of barriers to motor vehicles have appeared on the streets along with attempts to control the movement of vehicles by self-organized local groups.





