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Spaces of globalisation: Institutional reforms and spatial economic development in the Pudong new area, Shanghai

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Abstract

This paper investigates the unique institutional structures which manage interactions and interrelationships among key actors, their roles and functions, and how these articulate with national and global forces to produce new spaces of spatial economic development in the Pudong New Area in Shanghai. We begin with a revisionist historical perspective which links the official creation and initial development of Pudong to the political and international trade relations uncertainties of post-Tiananmen China and an economically laggard Shanghai of the late 1980s. The early focus in Pudong on export-oriented development has since yielded to a rather more sophisticated and comprehensive combination of strategies incorporating local, regional and international dimensions. Planning priorities and the resulting patterns of development in Pudong arose from the deliberate amalgamation and professionalisation of administrative responsibilities which have initiated and managed processes of change. The morphology of these spatial economic changes is not fully explained in relation to decentralisation, marketisation, and globalisation. The article considers a number of elements which need to be considered as part of a new conceptual framework for understanding the depth and extent of new spaces of globalisation in Pudong.

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Introduction

The Pudong New Area (PNA), lying to the east of the Huangpu River in the Shanghai municipal region and covering an area of 533 km², has seen a remarkable transformation since the Chinese government formally announced plans for large-scale development here in 1990. In the 10 years until 2000, the area experienced average annual GDP growth of 20% reaching US\$13.2 billion in 2001 (Pudong New Area Statistics Bureau (PNASB), 2002). Population has grown from 1.34 million to more than 2.4 million over the same period. The PNA is Shanghai's largest urban district with local financial revenue above US\$1 billion in 2001 (PNASB, 2002). The strategy and design of the PNA and subsequent spatial economic outcomes are large-scale, comprehensive and have been rapidly implemented with a number of relatively distinctive local characteristics not seen elsewhere in China, including a dramatic new central business district (CBD) skyline.

Actively discussed for many years prior to 1990, the impetus for developing Pudong emerged from a combination of international, national, regional and local circumstances. China's overall rate of growth had slowed considerably from 11.3% in 1988 to 3.8% in 1990 and at one point inflation had exceeded 20% during this same period (State Statistics Bureau, 1991). In addition, following 4th June 1989, many Western countries interrupted ordinary trade and technological, cultural and academic exchange activities with China amidst concerns about the open door policy and human rights. Meanwhile, the introduction of market-oriented measures in relation to persistent, merely partially reformed, command economy structures was not fully resolving problems of production, especially in the state-owned sector, which remained dominant in Shanghai at that time. Indeed, all economic actors in China came under pressure to respond to accelerating economic globalisation.

While the central government experimented with the establishment of five Special Economic Zones in southeast China during the 1980s, Shanghai was considered economically too important to be a testing ground for the relatively radical reforms being implemented elsewhere. Although still economically significant in absolute size, by 1989 Shanghai had fallen behind other regions in terms of growth rate, infrastructural development and economic restructuring. Of course, in the late 1980s Pudong itself was even further behind the rest of Shanghai by all of the most important measures (Shanghai Statistics Bureau, 2001).

It was in this context that the central government announced the development of the PNA leading with some very preferential opening up policies, especially in the tertiary sector. While opening up of the Special Economic Zones in southern China essentially adopted a regional focus (albeit with reference to nearby international and overseas Chinese dimensions), development of the PNA arose from a national level strategy marking a fundamental shift to global aspirations combined with regional and local implications. Announcement of the PNA project was intended to show the world that China was indeed continuing to open up and was seeking global economic integration. Development of the PNA would also lead to the vitalisation of the Yangzi River basin giving impetus to the national economy and stimulating more rapid urbanisation (Shanghai Pudong New Area Administration, 1993). Domestically, China's overall level of urbanisation was apparently not keeping up with industrialisation and economic restructuring (Marton, 2000).

Given the local successes of the Special Economic Zones in the south, various international political and domestic economic difficulties, and favourable political conditions in Beijing, the time was ripe to push Shanghai much further into the orbit of a market-based global economy by opening Pudong to the world.

This opening of Pudong has been characterised in spatial terms by the emergence of new spaces with specialist economic functions supported by new and reformed institutional regimes and a regulatory environment linked to an entrepreneurial local state. While the wider economic and social development objectives in Pudong are similar to other special zones and open regions in China, the particular strategies implemented and the resulting spatial economic outcomes are relatively unique in function, form and scale. Accepting that the socialist state is responding to new opportunities to reclaim legitimacy at the intersection of processes of decentralisation, marketisation and globalisation (Wu, 2003), then the particular spatial patterns that have emerged in Pudong need to be understood in relation to the way in which this intersection is negotiated and operationalised at the local level. Indeed, development of a framework to conceptualise these phenomena must account for links between local institutional dimensions and the production of new economic, social, and environmental spaces in Pudong.

This paper will investigate local level interactions and interrelationships among key actors, their roles and functions, and how these articulate with national and global forces to produce particular patterns of economic development in the PNA. We adopt a revisionist historical perspective, which links the official creation and initial development of the PNA to the international, political and trade relation uncertainties of post-Tiananmen China, and to an economically laggard Shanghai of the late 1980s. The next section summarises the overall planning strategy of the PNA highlighting some of the key spatial and policy dimensions that provided the foundations for development in Pudong. Analysis of shifting planning priorities and processes, and the role of institutional and individual actors at various scales reveals a complex network of interactions, interrelationships, and interests linked to particular spatial patterns of new economic activity. This is followed by an examination of the processes and mechanisms which link national and local priorities and institutional reforms to the production of new economic, social, and environmental spaces in Pudong. This section will also discuss how the early focus in Pudong on export-oriented development has since yielded to a rather more sophisticated combination of strategies incorporating, local, regional and international dimensions. The relationship to “old” Shanghai and to the lower Yangzi delta region are also explored. The overall objective is to highlight key components of a new conceptual framework by elaborating upon the key factors and particular spatial economic outcomes of development in the PNA.

As a member of the PNA Development Planning Bureau for several years until June 2003, the co-author based in Shanghai had privileged access to a range of information and key actors involved in various aspects of development in Pudong. Many of the findings presented throughout this article arise as a result of this experience and from the details contained in a variety of internal reports and other documents not specifically attributed in the text. Other observations and insights have been distilled from a large number of field visits and local interviews undertaken by both authors over a period of many years beginning in 1985.

Overall development strategy

This section briefly reviews the key strategic targets, principles and some of the specific measures implemented to carry out plans to develop the PNA. The main targets were to build Pudong into an export-oriented, multi-functional and modernised new city by the year 2020 with Pudong and Shanghai serving as the “dragon’s head”, leading development and opening up of other cities along the Yangzi River, revive Shanghai as a key centre for international trade, finance and shipping and to further deepen and broaden China’s reform and opening up to the outside world (Yeh, 1996). Several important principles underlay these targets (Wan, Yuan, & Wu, 2000):

1. Plans for the PNA were to consider its overall economic, social and “ecological” development in a sustainable way;
2. In terms of industrial development, priority was to be given to finance, trade and advanced services, high technology and tourism with a focus on large investors;
3. Urban development was to emphasise the construction of infrastructure and an “ecological environment”; and
4. Urban planning and industrial development of Pudong was to be integrated with the re-development of the old part of Shanghai to the west of the Huangpu River in Puxi.

The territorial development of the PNA hinged on the establishment of four key zones and linked sub-areas along an axis running through Pudong. The centre piece was the 28 km² Lujiazui Financial and Trade Zone facing Puxi, including finance and trade institutions, regional headquarters of multi-nationals and very high-grade housing. This is the only such zone in China at present. To the east of Lujiazui the 20 km² Jinqiao Export Processing Zone was to focus on modern manufacturing in the automotive, information, telecommunications and electronics industries. To the north, adjacent to the new port facilities along the south bank of the Yangzi estuary, is the 10 km² Waigaoqiao Free Trade Zone for international trade, bonded warehousing, export processing and distribution. Established in 1992, roughly in the centre of the PNA two years after the other zones, the 25 km² Zhangjiang High-Tech Industrial Park specialises in industries such as bio-technology, pharmaceuticals, micro-electronics, and software development (Walcott, 2002). These development areas are seen as the core for the economic and urban development of the entire PNA. Between and adjacent to the Lujiazui, Jinqiao and Zhangjiang zones sits the Huamu Ecological and Administrative Area, with large parks and open green space, middle and high-grade housing nearby and the PNA government offices. To facilitate investment into the development zones at least four key economic development companies were established with specific responsibilities for each area. Owned by the Shanghai Municipal Government, their initial capital base was the land under their direct control.

Across the entire PNA, total accumulated fixed asset investment had reached US\$42.5 billion by the end of 2001 for urban construction, economic and social development, including approximately US\$10 billion in infrastructure, public facilities and civic construction (PNASB, 2002). These funds were raised in roughly equal amounts from three sources:

1. Domestic companies and corporate groups anxious to exploit local preferential policies, and other provincial and municipal level governments who sought the advantages of easier access to the outside world and better economic information;

2. Selling of land-use rights and land leases, funds from listing the four key development companies on the Shanghai Stock Exchange, borrowing against parcels of land and using land to attract investment in joint development companies; and
3. Foreign direct investment.

The built-up area of the PNA expanded from 44 km² in 1990 to more than 100 km² by 2001, including the construction of 46 million m² of commercial and housing floor space, and the location of 140 new financial institutions over the same period (Wu, 2002). 2001 GDP in Pudong alone was greater than for all of Shanghai in 1991 (Shanghai Statistics Bureau, 2001).

Although, implementation of specific measures was undertaken in five-year stages from 1990, the overall planning horizon was some 30–40 years. The detailed urban development plan played a very important role in establishing the framework and bureaucratic space over and through which various actors negotiated and undertook their relationships to the wider project (Wan et al., 2000). An examination of the key actors in this context moves us towards an understanding of the spatial economic ramifications of development in the PNA.

Actors

From the Central Committee of the Chinese Communist Party (CCCCP) and various levels of government and planning agencies, to domestic and foreign investors, academic institutions and key individuals—all have played a role in shaping the outcomes of development in the PNA. The key categories of actors included the following:

1. Governments—The State Council and subordinate commissions and ministries; the CCCCCP; provincial and several other municipal and county level governments; and local government in the PNA.
2. Developers and Investors—The four key economic development companies; and a range of other domestic and foreign investors and companies.
3. Universities and research Institutes—Several local universities; research institutes such as the Shanghai Academy of Social Sciences.
4. Individuals actors—well educated and experienced persons; skilled workers, migrants; local residents; and an explicit recognition of the role of women.

Central organs such as the CCCCCP and the State Council (China's Cabinet) through subsidiary units, especially the State Development Planning Commission, initially determined the wider policies for development of the PNA. In 1986 the State Council approved the overall plan of Shanghai consenting to the proposal to develop a modern new city in Pudong. The formal public announcement was made on 18 April 1990 by Prime Minister Li Peng. Development of Pudong and the rest of Shanghai was elevated to a national level first priority through the 1990s. This high-profile support and impetus for the project was a key prerequisite for its successful implementation. With the macro-targets in place, its importance reaffirmed at the national level and for the international audience, and with a wide range of preferential policies put in place, interest in Pudong was heightened. Among the first to respond were a host of government

ministries and their affiliated enterprises who invested in buildings and office space, including the prominent Jinmao Tower largely financed by the State Economic and Trade Commission and the Shanghai Municipal Government.

The practical operating responsibilities and, initially, most of the staff for the project resided with the Shanghai Municipal Government and the Shanghai Municipal Party Committee. Headed by the Mayor of Shanghai, a Leading Group for the Development of Pudong was established in 1991 to provide integrated leadership, to direct planning and design endeavours to translate central policies into specific actions, and to undertake key decision-making authority for the project. The Shanghai Municipal Government, meanwhile, retained authority over the planning and construction of the very large infrastructure projects to coordinate linkages between the new developments in Pudong with the rest of Shanghai (Tsao, 1996). The municipal authorities also moulded and consulted public opinion by widely publicising the general and specific objectives of the PNA project. Many international conferences and workshops, research projects and related symposia were also sponsored by the Shanghai Municipal Government (Olds, 2001).

Interestingly, the government of the PNA was not formally established until July 2000—more than 10 years into the project—although much of the administration was firmly in place by 1993. Some understanding of the relative position, influence and activities of the PNA administration is revealing. While the PNA is administratively classified as an urban district, Pudong officials and their respective bureaux are equal in status to those at the municipal level for all of Shanghai. The head of the PNA, for example, is also a vice-Mayor of Shanghai. However, it is the structure of the PNA government and the way in which it executes its responsibilities which sets it apart from other parts of the Shanghai municipal region. Modes of regulation and governance in Pudong hinge on the development of an integrated, relatively large scale “entrepreneurial space” (after Wu, 2003, p. 1690). A brief look at the PNA Economic and Trade Bureau illustrates the point. Established in 1993, the Economic and Trade Bureau has five main functions: (i) To promote and manage industrial development, including the provision of administrative support services such as regulatory compliance and approval; (ii) To promote and oversee the development of domestic business and commercial links and interregional trade, including logistics; (iii) To promote and approve foreign direct investment, international trade, and related port and airport development and logistics; (iv) To promote and oversee the development of tourism and related activities including major international conferences and exhibitions. (This bureau led Shanghai’s successful bids to host recent APEC and Fortune 500 meetings and the 2010 Expo—all held or to be held in Pudong.); and (v) To promote and regulate industrial safety and provide guidance and support for industrial management and good corporate governance.

There is currently no other bureau elsewhere in China with such a comprehensive and integrated set of responsibilities. Even the new national-level Ministry of Commerce does not cover such a broad mandate. Extensive network of internal links to other bureaux in Pudong with an array of similarly multiple functions, the PNA administration was able to act in a relatively comprehensive, coordinated and prompt manner to formulate and implement entrepreneurial practices. The Pudong authorities were not held hostage to the extensive bargaining between different administrative scales and across sometimes incompatible or competing bureaucratic interests as seen in Puxi—or indeed just about every where else in China. This innovative institutional framework underlies the emergence of the relatively unique patterns of spatial economic development in Pudong. More will be said below about the nature of the relationship

with the older core of Shanghai in Puxi and some of the relevant planning initiatives undertaken at the local level.

Provincial, municipal and county level governments from virtually every region in China became interested in the benefits of having a presence in Pudong. Similar to the response from government ministries and other agencies, these other local and regional authorities often constructed their own buildings and commercial interests in Pudong to take advantage of the latest market and other economic information, to facilitate and engage in domestic and international trade, to seek opportunities to acquire capital, technology, to recruit and train skilled employees, and to solicit business for enterprises in their home areas. Indeed, much of the new skyline in Pudong arises from the presence of these domestic local government interests.

Developers and investors can be grouped into three general categories. The first was comprised of the four key development companies affiliated with each of the four specially designated development zones and sub-areas introduced earlier. These companies executed three primary responsibilities, including: (i) developing and implementing concrete plans within the territory they manage; (ii) cultivating and managing appropriate types of investment into their respective zones, and; (iii) managing certain economic and social affairs within their jurisdiction on behalf of the Shanghai Municipal Government and, more recently, the new PNA administration.

The second major category was domestic investors and companies. At the end of 2001, there were 5200 domestic businesses in Pudong with a registered capital of nearly US\$2.5 billion (PNASB, 2002). Among these were the subsidiary and main offices of 138 domestic foreign trade companies. Some of these included the government and government-linked interests referred to previously in addition to the relocated headquarters of more than two dozen large Chinese business groups. The third category of investor was comprised of more than 6700 companies from over 70 countries and areas with a total contracted investment of about US\$15 billion (PNASB, 2002), including more than 100 *Fortune 500* firms. Most of these investments are concentrated in capital intensive high-technology manufacturing, communications and transportation, finance and insurance. Many foreign experts have also contributed through extensive consultancies in these sectors as well as in the planning and design of certain components of the project, especially Lujiazui (Olds, 2001).

With more than 100 universities and research institutes in Shanghai, there was a critical mass of academic expertise available to investigate the many dimensions of developing Pudong and the wider region. Indeed, academics and other researchers at several key institutions, including the Shanghai Academy of Social Sciences, Fudan, Jiaotong and East China Normal Universities and the Shanghai University of Finance and Commerce among others, were actively debating proposals and strategies for the development of Pudong in the early 1980s. Some of this work found its way into formally commissioned reports and discussion papers which were vital in supporting the key strategic decisions to proceed with the project (Wan et al., 2000). Actively exploring the idea of remodelling a heavily industrialised Shanghai into a multi-functional international metropolis, the initial steps to formulate relevant new policies to revive Shanghai were supported.

Development of the PNA has created very good opportunities for the well-educated and very experienced personnel at home and abroad to realize their ambitions. Skilled employees here can give full play to their abilities, while migrant labour contribute to and benefit from work in Pudong (Wu, 2002). Local residents are both active participants and beneficiaries of the project.

Many have contributed both manpower and their older housing on land in good locations for the sake of urban or industrial development, themselves moving into better living conditions. The newness and innovative character of the project has accommodated significant and important opportunities for women. Women play a very active and successful role in much of the policy-making, urban planning and construction, industrial development, and economic, social and administrative management in Pudong (Wu, 2002).

Design and implementation

With reference to the wider strategies and development priorities, and the description of key actors and their institutional settings, this section reviews the design and implementation of five stages of the project. Discussion of the processes and mechanisms underlying development of the PNA in this way is not intended to suggest that they are discrete unconnected endeavours. Indeed, the nature of these overlapping interactions and interrelationships must be considered together to appreciate the Pudong scheme as a whole and the way in which they have impacted the emerging spatial economic landscape. While there are references to specific dates and events below, it is the gist of their cumulative and simultaneous impact that we wish to emphasise here.

Stage one: Overall substantive preparations

With many years of detailed academic research and internal policy debate before 1990, the stage was finally set for the Shanghai Municipal Government to begin the overall substantive preparations for the development of Pudong and the revival of Shanghai in earnest. There were three main aspects to this work in the very earliest stage.

1. *Organizations and qualified personnel*: The Pudong Development Office and the Research Office of Planning and Design of the PNA were established in 1990 to undertake investigations and to work out practical schemes for the development of the PNA. Combined with the other Shanghai Municipal Government organisations and economic development companies referred to earlier, these organisations attracted a new breed of excellent “go-getter”-like cadres, scholars, businessmen and advanced management and administrative personnel (Wan et al., 2000).
2. *Planning preparation*: Substantive preparations for the project began with completion of the overall plan for the PNA in 1991. The plan required that the development of the PNA be of an extremely high-quality international standard right from the start. A good example was the way in which well-known international calibre architectural and development planning consultants were invited to propose designs for the core financial and trade zone of Lujiazui (Olds, 2001). Such was the international profile and prestige of the project that the international participants did this work essentially for free. The planned centrepiece of Pudong was comprised of selected parts of the eight submissions.
3. *Preparing and advertising new preferential policies*: Deliberations on appropriate policies were well underway when paramount leader Deng Xiaoping made his now famous southern inspection tour in early 1992. Officials responsible for determining specific policies had also

been quietly studying successful regions nearby, especially Kunshan in neighbouring southern Jiangsu Province (Marton, 2000). Emboldened by the explicit high-level mandate to implement radical changes and with the taste of success (and potential competition) nearby, the State Council was persuaded to confirm a range of preferential policies for Pudong that put it on par with China's other Special Economic zones. The Shanghai Municipal Government moved relatively quickly to clarify the detailed practical components of the policies and began to vigorously promote and advertise them nationally and internationally (Wu, 2000).

Here it is important to emphasise the relative clarity of vision and the resulting strategic directions that emerged in the very earliest stages of the project. In the relatively uncertain economic and international political climate of the early 1990s, these preparations were to translate very effectively into workable practical outcomes that had a significant—even dramatic—impact on the spatial economic landscape.

Stage two: Infrastructure construction on a large scale

In March 1993 a Management Commission was established to take charge of the overall development of the PNA on behalf of the Shanghai Municipal Government. This signified a significant coming together of the extensive preparatory planning and organisational work towards the practical implementation of key policies. Among the earliest strategic priorities was the construction of several large-scale infrastructure projects, especially to link the PNA with Puxi (Olds, 2001; Tsao, 1996). Although some of the initial infrastructure projects were well underway or nearly completed by 1993, it was not until following the establishment of the PNA Management Commission that these endeavours really started to flourish in two respects.

1. *The inner area infrastructure system:* Between 1990 and 1995 nearly US\$2.8 billion was invested in transportation links between Pudong and Puxi including two bridges across the Huangpu River and several less high-profile projects in telecommunications, water and gas systems and electricity supply (Wu, 2002). Links with the older part of the city were initially seen as providing the necessary support for the early development of Pudong. A key arterial road system centred on the Yanggao thoroughfare connecting Lujiazui to two of the three specialised development zones and the new container port and power plant at Waigaoqiao was also completed. This provided the basis for the construction of 314 km of new roads and the introduction of 77 new public transportation routes in the PNA.
2. *Supporting manufacturing and service industries:* The global shift in patterns and location of manufacturing in the early 1990s was a key factor in determining the initial emphasis on promoting manufacturing industries in the PNA. Particular attention was given to the Jinqiao Export Processing Zone in order to invite and attract developers and manufacturing investment. Paralleling an upsurge in infrastructural investments in 1993, the relative importance of the services sectors became more apparent. Several domestic banks established large branches in Pudong starting in 1993 followed by a small number of foreign banks in 1995. This shift in emphasis was reaffirmed in 1995 with the adoption of State Council-sanctioned preferential policies that began to ease restrictions on foreign participation in the financial and other advanced services sectors.

Stage three: Continuing infrastructure construction and simultaneous functional development

Between 1996 and 2000, the early planning and policy preparations and ongoing construction of infrastructure projects was complemented by increased attention to issues of function, the environment and management. Here we introduce the notion of functional development to highlight this subtle shift in attention to these latter issues. While many of the preliminary “soft” elements and initial “hard” infrastructural developments were well in hand, planning and project management officials were keen to promote the simultaneous and deepening development of specific functions over space within the PNA. These included finance and trade and related services, high-tech manufacturing, tourism and exhibition space, real estate, and logistics and communication functions.

Continuing infrastructure construction: The ongoing development of infrastructure and related projects during this period involved consolidation of the transportation network of the inner urban area of the PNA, including links to the new Pudong International Airport, the construction of sub-roads within the main network, construction and landscaping of Century Avenue and adjacent boulevard between Lujiazui and the newly completed Century Park, and construction and landscaping to improve the environment in the area of Lujiazui and the Huamu Ecological and Administrative Area and several local rivers. Other work focused on infrastructure connecting Pudong to the rest of Shanghai, including the newly completed subway line to the Zhangjiang High-Tech Industry Park, and internationally, including phase one of the new airport, phase two of the Waigaoqiao Container Port and the new Shanghai Telecommunications and Information hub among others.

More open policies: The Shanghai Municipal Government took the lead in pressing the State Council to approve a range of new measures to support the development of high-level services in the PNA. For example, the People’s Bank of China granted permission to qualified foreign banks based in Shanghai to conduct Renminbi business and to other foreign firms to enter the domestic insurance market. These centrally sanctioned policies were complemented by a host of locally determined initiatives designed to facilitate domestic economic cooperation by attracting well-qualified personnel, big firms and enterprise groups and their headquarters to Pudong. By 1999, the Shanghai Municipal government had also issued policies focusing on the development of the Zhangjiang High-Tech Industrial Park in response to international trends in the information technology (IT) sector. Several preferential policies to streamline investment approval and the establishment of enterprises combined with concessions on land leasing and taxes were also implemented at this time.

Functional development: As policy formulation matured and the construction of infrastructure continued during this period the Shanghai Municipal Government oversaw the “filling in” of various functions across the PNA. All of these had implications for spatial economic and social transformation in Pudong.

In terms of high-end service, and economic management functions, by the late 1990s more than 70 financial institutions, including all of the big domestic banks and 30 foreign banks, and the Shanghai Securities Exchange had located in the Lujiazui Financial and Trade Zone. Moreover, 28 regional headquarters of multi-nationals also relocated to Pudong. The construction of very high-grade commercial and residential space was also well underway. Nearby Zhuyuan, one of the Business and Trade sub-districts, saw the establishment of the new Shanghai Futures, Property

Rights, Intellectual Property and Commodity Exchanges and several large-shopping centres. The international trade and distribution functions of the Waigaoqiao Free Trade Zone expanded with the entry of bonded warehousing, trade companies and logistics centres. The national and international significance of many of these developments were reinforced with recent high-profile gatherings, including the annual general meeting of *Fortune 500* and the APEC Summit held in Pudong.

Meanwhile, the tourism, exhibition, cultural and administrative functions of Lujiazui and especially the Huamu Ecological and Administrative Area emerged with the opening of the Shanghai International Conference Centre, the PNA Public Library and the 1.44 km² Century Park, and in July 2000 the formal establishment of the PNA Government and administrative offices in their prominent new facilities (Wu, 2002). Although the PNA retains the same administrative designation as other urban districts reporting to the Shanghai Municipal Government, local officials have a much greater degree of autonomy and decision-making authority. Unlike other districts in Shanghai, the PNA Government and Bureau level and other leading officials have much more freedom to determine the policies and practice of local development. Indeed, the PNA Government enjoys the same administrative authority and autonomy as the Shanghai Municipal Government, and the other national level cities, in six specific areas including: (i) economic planning and management; (ii) approval of industrial projects; (iii) management of major construction projects; (iv) fiscal and tax affairs; (v) personnel affairs, including labour markets and appointment of cadres and senior administrators, and; (vi) foreign economic relations. This authority is granted largely on the basis of the unique administrative character of the PNA, reflecting its regional, national and global significance, and its relative flexibility and autonomy in attracting the best and the brightest administrators, technocrats and managers.

Development of high-technology industries initially focused on the Zhangjiang High-Tech Park as the flagship initiative for IT investments (Walcott, 2002). Partly in response to the bursting of the IT investment bubble, the original plans were adjusted early in 2000 to widen both types of industries that would be encouraged under the relevant policies and the geographical extent of their development to include the Jinqiao and Waigaoqiao zones. Thus, in addition to investments in bio-technology, pharmaceuticals, micro-electronics and software development industries, which developed quickly in Zhangjiang, more than 150 automotive, information, telecommunications and micro-electronics-manufacturing enterprises were established in Jinqiao, including international giants such as General Motors and National. Investments from the likes of Intel and Hewlett Packard and about 2000 other manufacturing companies also complemented the growth of international trade, bonded warehousing and export processing in the Waigaoqiao Free Trade Zone.

Paralleling the development of high-end services and manufacturing functions, the rapid proliferation of urban infrastructure and vastly improving living and working conditions for most residents in Pudong, was the emergence of a burgeoning real estate development and marketing industry (Wu, 2002). By the end of 2000, housing and commercial floor space exceeded 66 million m² (PNASB, 2002), with occupancy rates that had on average reached 70%. Despite early concerns about over capacity, construction of office space resumed in earnest in 1999. By the end of 2000, there were 357 newly completed commercial buildings totalling more than 8 million m², and 203 office towers newly completed or under construction in Lujiazui alone with a total of

more than 5.5 million m² of floor space. Residential housing development brought 38.3 million m² of new floor space on stream by 2001, accounting for nearly 60% of the overall new construction of commercial and residential space in Pudong (PNASB, 2002). The construction and spatial proliferation of medium to very high-grade residential real estate is a key feature of the economic and functional development of the PNA.

During this period much attention was given to the continuing large-scale development of infrastructure both locally within the PNA and in fostering regional and international transportation linkages and economic cooperation. Meanwhile, simultaneous functional development at this time saw the deepening and proliferation of particular types of economic, social, environmental and administrative activities over discrete spaces. This included the introduction and establishment of many kinds of functional “carriers” like industrial enterprises, financial institutions and other high-end services, corporate headquarters, government and related administration and management activity, highly educated and qualified personnel, and the construction of cultural and ecological spaces. The dramatic, highly conspicuous transformation of the spatial economic landscape are all the more remarkable in the context of the 1997 financial crisis elsewhere in Asia, the bursting of the dot com bubble, and the global economic slowdown led by the US from 2000. By the early 2000 Pudong was beginning to blossom as a new urban entity.

Stage four: Functional development and urbanisation

This current phase, which will last from 2001 until about 2010, will see the maturing of the functional development described above and the continuation of urban construction. In spatial economic terms, this phase sees the PNA moving towards a more spatially coherent and functionally integrated urban landscape. Pudong will emerge more and more as a hub of capital, commodity, technology and information flows. The foundation for these flows is state-of-the-art information services and infrastructure, the abundance of business opportunities within Shanghai, the Yangzi delta and the wider China market, maintaining a competitive cost structure within environmentally friendly superior living and working conditions, and advanced local administration and management. The processes and mechanisms by which various actors execute their interests in relation to these factors will continue to play out in an increasingly dense transactional environment affecting the morphology of, and the articulation of interactions and interrelationships within the built environment.

Building on the current successes in stimulating the development of finance, trade, telecommunications, and some tourism, conference and exhibition functions, concrete priorities seek to take advantage of China’s WTO accession to promote accounting, legal, consulting and other advanced producer services. Micro-electronics, bio-engineering and pharmaceuticals and other high-tech non-polluting manufacturing, and software development and incubator/innovation functions will continue to develop. The real estate industry will broaden to include middle-level as well as high-grade residential housing and the development of advanced intelligent office buildings. Movement towards achieving the urban CBD status of Lujiazui as the core of the PNA was signalled with the beginning of the overall development of the frontage areas along the Pudong side of the Huangpu River in 2001. Development of these areas was held in reserve until the construction and “filling-in” of adjacent zones was completed or well underway. Meanwhile,

as part of constructing this newly built environment, there were also explicit plans to preserve and (re)create some aspects of the traditional rural landscape in Pudong.

The overall urban development of the PNA will continue to be influenced by the construction of several large-infrastructure projects, including the new Lupu Bridge and three more road tunnels connecting Pudong and the old core of Shanghai in Puxi, the magnetic levitation train connected to the Pudong International Airport, the second phase of the airport, Phase 4 of the Waigaoqiao Port and the outer ring road. Meanwhile, completion of the Eastern Arts Centre in Huamu and the green belts along several of the major thoroughfares will add to the cultural and ecological landscapes of Pudong. The urban operation and management of the PNA will retain schemes of governance which give priority to maintaining an attractive and business-friendly investment environment (see also Wu, 2002).

Stage five: Overall functional development beyond 2010

Beyond 2010 the PNA will enter into a period of overall functional development, including the improvement of urban infrastructure to support increased international activities in the fields of finance and insurance, trade, high-tech industry, logistics, management consulting and producer services, conferencing and exhibition facilities and services, tourism, culture and education, science and technology (Wan et al., 2000). The stated long term goals retain a focus on flexibility and responsiveness to the relevant global and domestic circumstances to build Pudong into an open, multi-functional and modern international city. Meanwhile, the way in which the PNA is to be integrated with the existing older parts of downtown Shanghai over the longer term has been articulated in the official discourse primarily in terms of the development of large-scale transportation infrastructure. A key challenge that remains is to conceptualise the emergence of a significant new urban space in Pudong as it emerges in relation to the older but rapidly transforming space of Puxi.

Conclusion

The planning, creation and management of discrete spaces of globalisation to enhance the development of particular functions, and the relative position and articulation of these spaces within a much wider coherent territorial structure is manifested in the unique spatial economic landscapes of Pudong. Even compared to the development of special economic zones elsewhere in China, the resulting land use changes across the PNA have been very rapid, large scale and comprehensive. The breathtaking shift from countryside to CBD, from paddy field to high-tech factory and rural landscape to skyscraper in such a short period of time, over such a wide area and adjacent to an established urban core the size of Shanghai is unprecedented. It is important to emphasise the remarkable territorial extent, rapidity and comprehensive character of spatial economic transformation in Pudong since the early 1990s. The detailed morphology of these spatial changes is not fully explained merely in relation to administrative and economic decentralisation, the introduction of market mechanisms or the increasing impact of international forces in China. The unique composition, depth and extent of this spatial economic transformation arises from the special institutional forms that have emerged within the PNA

administration to manage a coherent common vision. Indeed, it is the deliberate amalgamation and professionalisation of urban planning and governance—albeit over mostly green field sites and in response to perceived domestic and international circumstances—that has shaped the economic geography of Pudong. This phenomenon is to be distinguished from the often messy and largely informal bargaining between agents across different administrative scales seen across the older urban districts of Shanghai. Under these more typical circumstances in Shanghai and elsewhere in China, there has been a negotiating of interests among key actors over small scale bureaucratic and economic space, and a scaling down of the “state machine” (Wu, 2003, p. 1692), resulting in complicated, uneven and spatially dispersed patterns of mixed development and management.

Understanding the particular spatial dimensions of developments in Pudong too, requires knowledge of key actors and their institutional contexts at the local level, and the processes and mechanisms by which they interact to affect spatial change. Although the central government via the State Council approved the general parameters for development of Pudong, this was in large part driven and facilitated by the authorities in Shanghai. Local officials from the Shanghai Municipal Government were able to mobilise not only their internal political clout, but also the city’s historical financial and trading reputation, regional linkages and potential market to raise the national and international profile of the project. Opening up in this way meant, on the one hand, retaining a certain vigilance against perceived adverse influences in the ideological and cultural realms. On the other hand there was a clear recognition of an overwhelming need to import foreign capital, technology and scientific and management expertise. This tension was sometimes referred to as “not giving up eating for fear of choking” (Wu, 2002). It also points up the need to resolve and reconceptualise the articulation of “top-down” state-led and external/global processes and mechanisms with “bottom-up” (local) networks to explain spatial transformation.

The spatial characteristics and emergent patterns of development in the PNA were linked to particular elements of a comprehensive and clearly articulated overall strategy. Leveraging the value of land and land-use rights to fund the establishment of discrete functional development zones and the construction of major infrastructure projects, along with a sweeping array of institutional and regulatory innovations, underpinned specific planning priorities and subsequent investment which prompted and promoted spatial change in Pudong. These phenomenon in and of themselves are not particularly unique in China. However, the combination of very large scale and wide spatial extent, the establishment of several different functional development zones, proximity and links to China’s largest metropolis and economically advanced delta region, high-profile domestic and international interest and actors, and highly proactive, flexible and responsive new local administration staffed with well-trained technocrats, all of which have coalesced over a very short period of time, is certainly unique—even for China.

The most significant early spatial economic changes in the PNA began with the creation of discrete spaces intended to facilitate particular kinds of economic activity, especially in the financial services, trade and high-technology sectors. The initial focus on export-oriented activities in some of these areas has since yielded to a more complex combination of domestic and international linkages and aspirations. This shift in emphasis arose from the nature of the way in which key actors have interacted with each other, and in response to external circumstances, to produce trajectories and patterns of development not initially anticipated. However, the ability of

the Shanghai and Pudong authorities to respond to these changing international and domestic circumstances by adjusting priorities and institutional frameworks was a key feature of development in the PNA and is reflected in particular spatial outcomes. For example, despite the downturn in global technology stocks, investment in high-technology manufacturing in Pudong has continued apace through re-interpreting guidelines to widen the types of activities encouraged within designated development zones. Meanwhile, construction of the new Lujiazui finance and trade district, and the Huamu Administrative and Ecological Area have stimulated massive construction of residential space. Indeed, development of the residential real estate sector across Shanghai has had a significant impact on the local space economy (Wu, 2002), not to mention the impact on the financial sector as a result of a rapid increase in mortgage lending. Supported by preferential business development policies and the overlapping specific economic interests and motivations of the Shanghai and Pudong governments, there emerged many opportunities for skilled personnel and other actors to undertake relatively bold planning and entrepreneurial endeavours which have affected the economic landscape of the PNA. The construction of public places such as new parks and “ecological” green spaces, investments in new schools and higher education institutions, hospitals and other social welfare facilities are also evident in the emerging urban landscape.

Finally, there were two linked characteristics of development in the PNA alluded to above which need to be further highlighted to help understand and explain the particular patterns of spatial change in Pudong. The first was the mutual recognition and coincidence of similar economic motivations and interests among the key actors affecting transformation in the PNA. This convergence towards profit-making activities was especially evident in terms of how development in Pudong attracted an unusual array of trans-jurisdictional interests and actors from within Shanghai itself, regionally, nationally and internationally. Ironically, while much of the resulting behaviour of key actors in the PNA may be market-oriented and even global in outlook, the institutional and spatial parameters were largely determined by the local state. However, while difficulties may persist in managing certain aspects of regional economic cooperation across administrative boundaries in and around Shanghai (see Wang & Slack, 2002), there was a strong sense that development in Pudong was being driven by a set of factors which were not always bounded by territorial jurisdiction. It is still largely the case in China that regional governments are able to exercise considerable administrative influence (not always deleterious) over the behaviour of actors within their jurisdiction (Marton, 2002; White, 1998; Yan, Jia, Li, & Weng, 2002). It remains to be seen over the long-term, however, whether the rationale of marketisation and the external forces of globalisation in the PNA and Shanghai can overcome the problems of “economic warlordism” and irrational regional industrial and infrastructural patterns seen elsewhere in China (Marton, 2000). Thus so far, the trajectory and patterns of spatial economic development in Pudong seem to suggest that, at least within the Shanghai municipal region of more than 6000 km², there is a very good level of state-led coordination.

Which brings us to the second characteristic referred to above. The authorities responsible for development in Pudong have sought explicitly to maximise the mutual benefits of links to the older parts of central Shanghai in Puxi and to the wider region, especially the lower Yangzi delta. This is most clearly reflected in the construction of new transportation infrastructure linking Pudong to Puxi. Utilising an established urban core to support the development of new adjacent

areas is not unique to Shanghai. This sort of thing has happened elsewhere in China. Notable nearby examples include Suzhou and Kunshan in southern Jiangsu (Cartier, 1995; Marton, 2000). However, the scale of such developments elsewhere, and the implications for spatial economic change and urban transformation, pale in comparison to the depth and extent of changes in the PNA in relation to Shanghai. While the contours of the spatial economic landscape have been transformed, there have also been other less obvious, but no less significant changes in perceptions of Pudong in relation to the rest of Shanghai (Gamble, 2003). A common refrain among Shanghai residents before 1990 suggested that a single bed in Puxi was preferable to a new house in Pudong. While some locals in Puxi may still scoff at the prospects of living across the Huangpu River, there is little doubt in the eyes of many Shanghai residents and other observers that Pudong represents the future of a modern, urbane, internationally competitive and cosmopolitan China.

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