TITLE PAGE

The Grid Process: Spatializing Local Governance in China

Yu Gao

School of International Studies, University of Technology Sydney, Sydney, Australia

Yu.Gao@uts.edu.au

Carolyn Cartier

School of International Studies, University of Technology Sydney, Sydney, Australia

Carolyn.Cartier@uts.edu.au

Abstract

Grid systems for local governance and administration in China, known as grid management or *wanggehua guanli* (网格化管理), have been implemented since the mid-2000s. Where existing research focuses on the embeddedness of grid technology in state-society relations, the spatial dynamics of urban grid administration and their significance in China's state structure receive less attention. This analysis adopts the idea of the spatial process for a dynamic approach to grid governance, from its incorporation in China's urban management efficiency drive to its implementation in city districts through local territorialization, to assess the urban grid system as an administrative area and inter-scaled spatial governing strategy. Implementation of the grid system establishes smaller governing areas while networking higher-level jurisdictions, with the result of overcoming some of the authority fragmentation in the state structure. Grid governance contributes to increasing local state power in China.

Keywords

Introduction

In recent years, color-coded maps of grids have become common in local urban areas, called *shequ* (社区) in China. On a visit to Xianru *shequ*, a new residential area in Shandong province, the grid map on the wall of the Xianru Shequ Residents' Committee office showed rainbow-colored blocks depicting residential buildings in seven grids.[1] Figure 1. But what is the grid is far more complicated than what appears on the map. The grid exists in spatial-technological relations with the state governing structure and grid areas are subject to change.

The word *shequ*, a keyword in the nomenclature of local governing areas in China, can sound cumbersome in English. The sociological scholarship on state-society relations in China Studies normally translates *shequ* as community or neighborhood. We maintain *shequ* in this analysis because the normative translations lack the spatial and administrative meanings of *shequ* governance. The word *she* in *shequ* means society and the *qu* means area, district, or zone—a bounded area. In the hierarchy of China's state structure, the *shequ* is a demarcated administrative area of city subdistricts. In most cities, the introduction of the grid system has established subareas of the *shequ*, called *wangge* (网格) or grids, which extend the spatial governing system.

Figure 1 ABOUT HERE

This analysis positions China's adoption of grid management in the territorial-administrative system to demonstrate spatial variation and dynamics in grid implementation and show how the grid system fills gaps in the local administrative structure and supports party-state leadership. First, we consider the normative China Studies scholarship on grid management in state-society relations. In reflection on its spatial limitations, we conceptualize the urban grid through the idea of the spatial process in geographical thought. Next, we introduce the *jiedao* (街道), the subdistrict, the lowest-level administrative division, in scale relations with the district and the *shequ*, and through the constraint of the "single-item veto principle" or *yipiao foujue yuanze* (一票否决原则) to show how Chinese Communist Party (CCP) officials or party officials, especially local party secretaries, are motivated to utilize grid capacity. To analyze grid implementation, we examine the work of the Beijing Dongcheng district party secretary who innovated a best practices approach to demarcation of grid areas. To demonstrate how the grid concept has evolved into a new de facto scale of administrative space, we also draw on the grid implementation manual of the Guangzhou city government. The final section demonstrates spatial variation and dynamism in grid implementation through adjustments in area, size, and level of local government. The conclusion reflects on the significance and dynamics of the grid in urban governance, its extension of the structure of the administrative divisions, and its capacity to intensify state power at the "grass roots" or *jiceng* (基层) with implications for general research.

A set of research questions frames the course of the analysis. Amidst new research on the grid system in China, how has the scholarship interpreted the grid system and in what ways can geographical thought address its limitations? What capacities does the grid system engender and whose interests do they serve? How has the grid become institutionalized in China's spatial governance system and implemented in local government and administration? If grid spaces are dynamic governing areas, then in what ways and for what reasons do local

governments demarcate and change grid areas in practice? How does implementation of the grid integrate with and extend the state spatial governance of the system of administrative divisions and with what effects?

The limits of state-society relations

The China Studies scholarship on grid management adopts state-society relations to treat the grid as a technology of governance and administration for social services provision, social surveillance, and general "stability maintenance" or *weiwen* (维稳) (Lin 2013; Wu 2014; Hoffman 2017; Qian 2018; Schwarck 2018; Leibold 2019; Tang 2019; Mittelstaedt 2022; Kan and Ku 2021; Chen and Greitens 2022). It examines sociological categories including grid workers who manage local population data, which has served, for instance, the administration of stay-at-home quarantine during the pandemic (Chen and Greitens 2022). Jean Mittelstaedt (2022, 7) identifies the how the grid works "as a hybrid system that enables the party-state to both control and service the grass roots." Grid systems, like many localized institutions in urbanizing China, demonstrate some experimentation in focus and approach. In practice, the daily routine work of grid management focuses on the maintenance of small-scale urban infrastructure, for instance, signage, bus stops, trash receptacles, manhole covers and more.

The stability maintenance rationale of local governance and grid management in China is important, yet not because Chinese society is especially unstable. Understanding the stability rationale is important because the regime interprets legitimacy through the continuity of power and reproduces its immanence in local society through forms and practices of monitoring that ostensibly seek to preempt instability (Yang 2017). Social instability is in part an ideological discourse that constructs not an object of governance but the infinite

potential to *reproduce* the object of governance. Grid management telescopes into local governance this potential in the name of stability control.

The connotation of stability maintenance echoes in research on grids as if space is fixed and stable. The state-society approach, holding space constant, tends to make assumptions about grids as uniform squares of fixed space. Indeed, misassumptions about uniform grid areas characterize portrayals of China's grid management. Among examples we find "the 'gridded management' system is based on or built inside *shequ* and divides neighborhoods in each *shequ* into individual grids (normally 10,000 square meters or 200–300 households per grid)" (Qiao 2018). "A demarcated 'she-qu' is segmented into 100×100 square meters grids" (Wan 2015, 467-68). "The system will carve up neighborhoods into a grid pattern with 15-20 households per square" (Jiang 2021: 495). "Beijing is divided "into 1,652 geographic grid cells, with each cell 100 by 100 meters" (Wu 2014). "The method carves up urban neighborhoods, and even some rural townships, into geometric grids, in some cases as small as one hundred square meters" (Leibold, 2019 50). Even the specialist literature suggests that grid systems in China uniformly checkerboard the landscape. These portrayals are mistaken, however. Uniform grid spaces belong to the global coordinate system of remote sensing forming grid squares at multiple scales at 100 km², 10 km² or 1 km² down to 0.1 km². The system of grid governance is entirely different.

Embedded in the modernization drive for science and technology, grid governance in China represents neither a system of uniform quadrilaterals nor merely a technology of urban management. The grid in China is a technology-linked dynamic spatial area that networks inter-scaled administrative areas, levels of government, and government departments. Grid governance establishes dynamic and discrete local governing spaces that reduce and refine the mesh size of the administrative net. Its digital function networks multiple government bureaucracies at the same and higher levels to produce a new volumetric capacity. In prosaic

terms, the grid system seeks to make urban management more efficient. Its condition in common with the grid coordinate system is the utilization of geographical information science (GIS) applications to operationalize spatial data. It is evidence of the "modernization of China's governance system and capacity" (*guojia zhili tixi he zhili nengli xiandaihua* 国家治理体系和治理能力现代化) with widespread rapid urbanization in China (CCP Central Committee 2019; State Council 2020; NPR 2020). To analyze these complexities, we introduce the idea of the grid process to conceptualize the general implementation of grid governance.

The spatial process and the administrative divisions

The idea of the spatial process appears in multiple subfields of geography. In general, it refers to interrelated changes in space and time in which historical dimensions contribute to revealing causal elements of spatial transformation. The spatial process also reflects different bodies of thought. In liberal economic thought, the spatial process tracks the diffusion of economic activity and population mobility on a market landscape or the uniform plain of location theory. Torsten Hägerstrand's landmark 1968 book, *Innovation Diffusion as a Spatial Process*, for instance, examines the dynamic distribution of technological innovations with socioeconomic development (Hägerstrand 1968). In the lineage of Marxist thought, the spatial process concerns the emergence of new spatialities at multiple scales with political and economic restructuring. Rather than an assumed fixed landscape on which market relations play out, new spaces emerge through dynamic relations of production and political-economic change.

The Production of Space, Henri Lefebvre's philosophical treatise, generates this dialectical approach to the spatial process. Lefebvre (1991, 34, 36) writes, "It is not the work of a moment for a society to generate (produce) an appropriated social space…to which that

society is not identical, and which indeed is its tomb as well as its cradle. This act of creation is, in fact, a process. … If space is a product, our knowledge of it must be expected to reproduce and expound the process of production." Space at large, in Lefebvrian thought, is socially produced in relation to the political economy. Steeped in twentieth-century debates over modes of production, Lefebvrian thought accommodates analysis of the urban process in the Chinese political economy (Cartier 2022).

Lefebvre (1991, 421) distinguished the "Chinese road" from the Soviet model in which the governing project of the People's Republic of China (PRC) "testifies to a real concern to draw the people and space into the process of building a different society" including "the production *of space* as a whole, the production of a space ever more effectively appropriated." The PRC continues socialist structures and institutions, especially state ownership of land and the unitary state formation under the CCP which maintains power over articulation of the territory in a system of administrative divisions. At the intersection of land, government, and power, the structure of subnational governance in China takes shape in a ranked system of territorial-administrative areas that reproduce the state spatial structure at every level of governance from provinces to prefectures, counties, and townships/towns.

Contrary to normative assumptions about generally fixed systems of subnational territory in national states, the administrative divisions in China are dynamic areas immanent with adjustable areas and boundaries, rural and urban categories, and state-assigned functional assignments among other dimensions (e.g. Cartier 2013, 2016; Carter and Hu 2015; Liu 1996, 2013). All government organs at different levels embed in this dynamic spatial structure. The 2018 Administrative Division Regulations, which update the 1985 regulations, emphasize "scientific" demarcation of the administrative divisions in relation to urban planning, social development, and local governance (State Council 2018; CCP Central Committee 2019).

In the state spatial process, the Chinese central government changes territorial-administrative areas to establish governing spaces for the unfolding political-economic program. For instance, when China's urbanization drive began in the 1980s, the first major administrative reforms changed the old rural prefecture- and county-level administrative divisions into administrative cities in order to govern urban-industrial transformation (Cartier 2015, 2022; Liu and Fan 2015; Martinez and Cartier, 2017). In the process, cities in China changed in scale and scope, from small urban-economic agglomerations of the Mao era, into large governing territories at prefecture and county levels. In response to the demise of the Mao-era *danwei* (单位) or work unit, and new challenges of local governance with urbanization, administration reforms also scaled down the governing space from the city district and the subdistrict or *jiedao* through the establishment of *shequ* in subdistricts.

In general, a prefecture-level city oversees county-level administrative divisions—counties, county-level cities, and city districts, which lead township-level administrative divisions—rural townships or *xiang* (乡), towns or *zhen* (镇), and *jiedao*. Literally street-road (街-道), and typically translated as "street," *jiedao* is the lowest-level urban administrative division with a defined territory. We maintain use of *jiedao* rather than adopt its misleading translation. The common translation descends from the institution of the street office or *jiedao banshichu* (街道办事处) in the 1950s, which originated in the institution of the Public Security Station or *gong'an paichusuo* (公安派出所) (National People's Congress 1954).

Some debate ensues over the status of the *jiedao* as an administrative division because, unlike the township and town, it does not have all the government organs, especially the Local People's Congress. But the Administrative Division Regulations, published by the State Council, take the *jiedao* to be a de facto administrative division unit, and its territorial adjustments, like those of the system of administrative divisions, exist under the governing line of the Ministry of Civil Affairs. The province-level Civil Affairs Bureau settles the

demarcation criteria of *jiedao*, and the prefecture-level city government holds the approval rights, under the supervision of the provincial government, for changes to the size, boundary, and toponyms of *jiedao* (State Council 1985, 1986, 2018; Zhejiang Civil Affairs Bureau 2014). In the year 2018, for instance, there were 170 *jiedao* territorial adjustments nationwide (Ministry of Civil Affairs 2018).

At the county level and the township level, the general urban process finds that counties will become county-level cities or urban districts, and townships and towns will become *jiedao*. Changing towns to *jiedao*, establishing a new subdistrict in a city, is state spatial strategy to propel rural-urban integration and urbanization. Under rapid urbanization, the number of townships has predictably decreased, from 24,745 to 10,253, while the number of *jiedao* increased from 5,904 to 8,393 (Kan and Chen 2021, 631).

Consequently, we position implementation of the grid in the structure of the local administrative divisions at and below the county level in subdistrict divisions in order to demonstrate how grid implementation articulates and refines spatial governance with *shequ* areas. The *jiedao* or subdistrict leads *shequ* areas, and grids are divisions of *shequ*. Like the *shequ*, the territorial space of grids is mimetic with the state spatial structure of the administrative divisions. Unlike the administrative divisions, *shequ* and *wangge* do not have full organs of government. Like the administrative divisions, *shequ* and *wangge* are dynamic areas under the authority of the higher-level administrative division, the *jiedao* subdivision of the urban district.

The spatial challenges of local government

We encountered the administrative governing area of the *shequ* during research on the urban administrative divisions with Liu Junde 刘君德, founding director of the Center for Research on the Administrative Divisions in China, East China Normal University. Liu

recognizes that the *shequ* is not a "naturally" formed place but is a designated governing space that is superimposed on and integrated with society. Liu defines the *shequ* as a *xingzhengqu shequ* or "administrative division-community," with a defined territorial area, scale of population, and governing institutions. For Liu, who has analyzed conditions for the administrative divisions in general as well as demarcating *shequ*, a well-defined *shequ* space improves the space-time relations of everyday local administration (Liu 2013, 10-41). The *shequ* is not an administrative division but it is a governing space mimetic with the administrative divisions at the pivot between the subdistrict and the grid.

Ideas and realities about spatial governance in China inhere within the dynamic system of administrative divisions, yet it is not always clear why China determines and changes state space in the process of administering society and the economy. Dynamic governance of the administrative divisions serves prevailing goals of the regime in general and interests of party officials in particular, whose career progress depends on meeting goals within their administrative area. The organization and evaluation of party-state governance, i.e. both party leadership and state administration, takes place within the hierarchical and spatial organization of the administrative divisions. At the lowest level of administration in cities, administrative responsibilities of the subdistrict telescope to smaller areas through *shequ* and grids. Just how implementation of the grid serves interests of subdistrict or *jiedao* government emerges in the "single-item veto principle."

The single-item veto principle, abbreviated as *zongzhiwei* (综治委), represents the problems and interests of officials in controlling administrative space. Introduced in 1991 by the Central Public Security Comprehensive Management Commission, the *zongzhiwei* intensifies challenges of local government because it rivets party officials' promotion opportunities to incident management (*Zongzhiwei* 1992a; *Zongzhiwei* 1992b; Yang 2017), in which a single incident in the jurisdiction can limit future promotion. If a party official's

future is bound to her or his administrative space, then motivation to climb the ranks generates interest to tighten authority over the administrative area. Consequently, local party officials seek to establish governing authority "horizontal to the edge, vertical to the end" or *hengxiang daodi, zongxiang daobian* (横向到边, 纵向到底).

The solution is a finer mesh of the administrative net in the form of the grid. Historically, responsibility for local incident management was unclear and distributed among the functional institutions in an area. The *zongzhiwei* turns the subdistrict into the local party secretary's space of responsibility in which the party secretary must achieve zero incidents of social instability (Yang 2017). In practice, achievement of zero incidents requires rapid response to identify any potential issue before it escalates. It compels a space-time approach to everyday practice of administration.

In the process of urbanization, the *jiedao* is a dynamic space in three main ways. Officials in charge of subdistricts face contradictions from area adjustments, urban and economic growth, and fragmentation of administrative rights. One, larger *jiedao* create more work for the local bureaucracy because the numbers of government officials and administrators are assigned by unit, not area size. For instance, in the 2014 *jiedao* demarcation criteria of Zhejiang province, *jiedao* territory ranges in area from 20 to 50 km² and the population size varies from 30,000 to 150,000 (Zhejiang Civil Affairs Bureau 2014). Meanwhile, *jiedao* officials have no rights to change the area of the governing space. *Jiedao* mergers are common, and different *jiedao* demarcation criteria appear in different time periods and in different provinces. Two, some *jiedao* might not expand in area but gain new responsibilities with new housing, population growth, and commercial development, which increases the work of *jiedao* offices including coordination with different levels of government to accomplish specific tasks. Three, top-down administrative rights held by higher-level government offices, such as at the district level, become "fragmented" in local

practice in the subdistrict. This is the problem of fragmentation in the PRC governing structure, well-known in in the scholarship as "fragmented authoritarianism" (Lieberthal and Oksenberg 1988). In relation to the contradictions, let us give this political-sociological concept some spatial dimensions.

Spatializing fragmented authoritarianism

The common approach to explaining fragmented authoritarianism adopts *tiao-kuai* (条-块) relations in which the *tiao* (条) or hierarchical "line" in party and government administration have "vertically-led governing institutions" or *chuizhi guanli bumen* (垂直管理部门). In this relation, authority is maintained by upper-level governing bodies. The horizontal dimension is the *kuai* (块) or "piece" in which the *kuai* territory is the administrative division and the office that represents it. The *kuai* symbolizes the state power horizontally over the *jiedao* governing space, yet it is often interpreted as the office or *jiedao* offices rather than the *jiedao* area, the territory itself, and its representative offices.

But the *jiedao*'s authority, especially its enforcement rights, is fragmented by *tiao* relationships. For example, the Public Security Station in the *jiedao* exists in a *tiao* relationship, led by the Public Security Bureau at the district level. District-level authority over public security work in the *jiedao* limits or fragments the enforcement rights of the *jiedao* in public security issues. In addition, the Urban Administrative and Law Enforcement Bureau, known as the *Chengguan* (城管), is dispatched from the district level to the *jiedao*, which fragments the *jiedao* government's authority over urban management issues. For example, in Guangzhou city, before 2014, the district *Chengguan* bureau held direct leadership over the *Chengguan* branch at the *jiedao* level. Since April 2014, the power relations have changed, with the *jiedao* office taking the major leadership over the *Chengguan* branch and the *Chengguan* bureau at the district level holding the indirect

(professional guidance) leadership over it (Xinkuaibao 2014). In many cities the *Chengguan* branch at the *jiedao* level is still separate from the *jiedao* government office.

The fragmentation of local authority and its dynamism is interpreted as the *tiao-kuai* contradiction at different levels and inside a certain administrative division (Lieberthal and Oksenberg 1988; Mertha 2005). Where the goal is seamless governing capacity, this problem is interpreted as poor cohesiveness in the bureaucratic structure (Zang 2017). The double hierarchy of authority inside a local administrative area increases work for local government and exacerbates the daily bureaucratic contradictions. But the fragmentation explanation leaves latent the inherent spatial relations: both the horizontal-territorial governing bodies and the vertically-led institutions exist in a local administrative division. We develop an elliptical diagram to show the spatial-hierarchical relations of district, *jiedao*, and *shequ* institutions. Figure 2. Different from the traditional vertical illustration of governing relations, this diagram represents selected *tiao* and *kuai* governing bodies in schematic areas to visualize the hierarchical and lateral relations within the immanent spatial structure. Inside the circles of governing space, numbers represent selected governing bodies. The *kuai* government includes functional government offices such as the *jiedao* Civil Affairs Office, the Public Security Bureau, the Women's Union and so on. In addition to the Public Security Bureau in the district and *jiedao*, local civic policing exists in *shequ minjing* (社区民警).

Figure 2 ABOUT HERE

The city district, above the subdistrict, has enforcement rights to solve issues at lower levels, yet with its territory tens of times larger than the *jiedao*, and hundreds of times larger

than the *shequ*, it does not manage specific issues directly. Consequently, in striving for spatial seamlessness and rapid local management, *jiedao* or subdistrict officials seek to shift responsibility for stability maintenance tasks to the subsidiary *shequ* where incidents are more reliably identified in their smaller areas. The comparatively small size of the *shequ* facilitates incident identification, but the *shequ* residents' committee lacks the relevant enforcement rights for resolving issues. Moreover, locating task responsibility two levels below the city district government exacerbates the contradiction in authority fragmentation among the three levels. The district level government—with three layers of governing space, three levels of government institutions, and multiple responsibility spaces in practice—cannot rapidly reach the grass roots.

The history of the disappearance of manhole covers in major cities demonstrates the challenge in urban infrastructure maintenance. After steel prices doubled, in 2004, thousands of manhole covers were stolen in Beijing alone. Sources differ on the total numbers, but conservative estimates report that in 2004 nearly 22,000 disappeared in Beijing (cf. *Xinhuawang* 2004, *Renminwang* 2015). And the many different types of manhole covers exacerbated the management dilemmas. Central Beijing's Dongcheng district had fourteen types of manhole covers under the jurisdictions of ten different functional government institutions, some at the *jiedao* level, some at the district level, and some even at the city level (Chen 2006, 57). The theft of manhole covers occurred in many other cities and became a national problem.

From the district government's perspective, the double effect of the district being too large to deal rapidly with the issue—many ranks and institutions involved in the reporting hierarchy, with some cases requiring inter-institutional cooperation and at different levels of

government—made the work among all relevant offices and administrative divisions, to replace even one manhole cover, easily span days or weeks. Slow response in public infrastructure management—structurally embedded in the spatial hierarchy, pressured by the single-item veto principle, and with impacts of increased costs for public order maintenance on local budgets—could lead to negative media exposure, aggravate potential hazards, and jeopardize local officials' career opportunities. Under these circumstances, in 2004, a district government in Beijing experimented with determining the areas of urban grids that would transcend the spatiotemporal gaps and inefficiencies of local government.

The "right size" in urban management

The early grid experiment resonated with the national discourse of social management or *shehui guanli* (社会管理), proposed in 1998 by Jiang Zemin and subsequently supported by Hu Jintao, who preceded Xi Jinping, that would improve party-state governing control through advanced technology. The Chinese government has consistently supported practical adaptation of science and technology applications in government administration with particular emphasis on data management through GIS applications. Some provinces and major cities became early adopters of geographical information collection and digital mapping. In 2001 Fujian province launched "digitalizing Fujian," led by Xi Jinping, who was the provincial governor at the time (National Remote Sensing Center of China 2012). (Xi became party general secretary and president of China in 2012.)

In Beijing, new management techniques and advanced GIS technology became available for pioneering government use in automation of the bureaucracy. In central government administration, use of a GIS platform has facilitated automation of the State Council bureaucracy since 1992 (National Remote Sensing Center of China 2012). The

National Remote Sensing Center of China, affiliated to the Ministry of Science and Technology, maintains the nationwide GIS data, including toponyms and the spatial coding system that demonstrates how the grid is a spatial-technological extension of the administrative divisions. The GB/T2260 coding system designates each administrative division at and above the county level by a six-digit code. The GB/T10114 system codes each of the subcounty-level divisions (*xiang*, *zhen*, *jiedao*) by a three-digit code. The designated code of each grid is a fourteen-digit code that combines the six-digit number and the three-digit number, in addition to the three-digit *shequ* number and the two-digit unit number of the grid (Chen 2006, 133–34). Like the *shequ* in subdistricts, the space of grids is subsidiary to *shequ* and inseparable from the spatial governing structure of the administrative divisions.

With advancing urbanization under reform, the goal of relatively seamless urban governance became a new priority. In Beijing, technology applications for urban management began relatively early. Beijing's Dongcheng district, the eastern city core, had participated in a pilot program in the early 1990s under 863 Program that surveyed categories of geographical information. To concentrate enforcement of urban management, Beijing merged separate functional departments in charge of different aspects of public infrastructure and the urban environment maintenance into one bureaucracy, the *Chengguan*. Then the city dispatched it, i.e. maintained enforcement rights authority at the district level, into the existing governing space of districts and *jiedao* (Zang and Pratt 2019). In 1997, Xuanwu district, in the west of central Beijing, was the first district nationwide to experiment with the *Chengguan* bureaucracy. By 2002 it was established in cities around the country. But the establishment of the *Chengguan* department at the district and *jiedao* levels could not resolve the spatial-institutional distanciation between fragmented enforcement rights and relatively large spaces of responsibility in subdistricts.

Under these circumstances, Chen Ping 陈平, the party secretary of Dongcheng district, developed an approach for a new "right size" space of responsibility—the grid—to optimize the rigidity of the spatial governance structure in urban infrastructural management. Along with Dongcheng district, sources concur that there were early experiments with the grid in Shanghai in 2004. Debate ensues over which city was first with most sources favoring Beijing (cf. Qian 2018). The case of Dongcheng rises to prominence because it innovated a best practices approach to grid area size demarcation. The party secretary of Dongcheng turned the size question into a governing problem that would be solved through precise yet dynamic implementation of grid space.

Dongcheng district is the location of Tiananmen Square and the Forbidden City, among the most important places in the capital. It is an administrative division that comprises multiple responsibility spaces in *jiedao* and *shequ*. In 2004, the area of Dongcheng district was 25.38 km² and approximately rectangular with each side between four and five kms. It had ten *jiedao* with an average area of 2.5 km² and 137 *shequ* averaging 0.18 km² with hundreds of internal boundaries to negotiate (Chen 2006, 51, 132–33). Though Beijing's smallest district, it was still too large for rapid resolution of the full range of urban management tasks. Their variety required the district government to coordinate with thirty-seven government departments and institutions at different levels for different responsibility spaces. For Chen, the ideal solution was smaller spaces with more concentrated enforcement rights that would shorten the physical distance of task management, which, in turn, would decrease time spent in the traditional bureaucratic workflow. The grid and the GIS technology, with its networked information, automating management techniques, would allow it to be configured.

The GIS for grid management codes information for each item of public infrastructure, including its location and corresponding bureaucracy, to pin-point incident tasks both physically and bureaucratically (Chen 2006, 58). Dongcheng coded 196,947 items of public infrastructure, including all perceivable items on the street: manhole covers, bus stops, advertising boards, parking facilities, old trees, green sites or parks, public sculptures, chairs, public toilets, trash receptacles, and construction sites, in addition to water bodies and water-control engineering. The government adopted the *chengguantong* (城管通), an urban management smartphone-based information collection device, to report on and record the coded items.

Chen also proposed to optimize the district government workflow in the hierarchical and bureaucratical governance structure through a digital platform center. It would integrate the GIS-based data with the thirty-seven departments, including twenty-seven government institutions at the district level and ten *jiedao* offices. A grid worker, responsible for *chengguantong* information collection, would be assigned to each grid. Information collected from the *chengguantong* would go directly to the district digital platform. With immediate information and accurate locations, the district's digital center would dispatch work tasks to the relevant departments for relatively efficient administration of solutions. The networked information, linking space in time, would transcend *tiao-kuai* contractions.

Inspired by the scientific potential of spatial-technological optimization, Chen proposed a grid area less than one tenth of the existing *shequ* governing space. Chen's idealized grid area demonstrates theory rather than practice: each grid would be approximately 100 meters on each side. This notion of the 100-meter length, which Chen

deemed to be walkable for fast and accurate spotting, locating, and resolving urban management issues, has contributed to the misassumption of uniform square grids. Echoing a long history of using the metaphor of ten thousand to name idealized numerics in China, Chen named the project the 10,000 m² grid or the *wanmi dan yuan wangge* (万米单元网格).

From Chen's ideal-type grid and interrelated reports, various media and scholarly accounts have repeated the notion of the grid as a uniform geometric space. But given the dynamic nature of the administrative divisions system, this is, predictably, incorrect. In reality, areas of grids are irregular and demarcated according to existing territorial conditions, following existing boundaries of the *shaku*, *jiedao*, and district, and other specific local conditions. In practice, Chen developed a set of principles for indigenization of "right size" demarcation:

1. Scale principle: from 1:500 to 1:1000, in special circumstances no less than 1:2000

2. Territorial management principle: no grid crosses a *she* boundary

3. Geographical pattern principle: demarcation follows landscape features such as alleys, courtyards, public parks and squares, bridges, rivers, hills, lakes and so on

4. Current management principle: where grids exceed 10,000 m² the management space of *danwei* should not be split

5. Convenient management: the grid should be easy to patrol

6. Workload balance: each grid encompasses a similar number of public infrastructure items and should not traverse built structures

7. Seamless stitching principle: there should be no gap between the grids and no overlap

8. Relative stability principle: the grid area should be relatively stable to maintain responsible workflow of each task (Chen 2006, 130).

This set of demarcation principles became the basis of the national standard for the implementation of grid spaces (National Standard 2013). The irregular and dynamic nature of the grid space also reflects changes in the conditions the local administrative divisions and *shequ.* For example, in 2004–05, the first year of grid implementation in Dongcheng, the district adjusted the boundaries of both the *shequ* and the grids, merging some *shequ* and merging some grids. In 2005 the number of *shequ* in Dongcheng decreased from 137 to 126, and the number of grids dropped from 1652 to 1593 (Chen 2006, 127). With slightly larger size of *shequ* and grid areas, the adjustments were made to "fit" changing social circumstances and optimize and balance the workload of each grid.

The new grids as responsibility spaces, compared to the *shequ*, supported by networked spatial information on each public item, decreased the management time for each incident case and reduced some management costs while better maintaining public infrastructure. From 2003–05, local complaints about infrastructure conditions, an avid concern of the public, fell from 52 to 14.9 percent of total "petition letters" *xinfang* (信访) (Chen 2006, 245). Dongcheng's early success with grid management soon became a model, held up for emulation by central and provincial party leaders—including Xi Jinping, who was party secretary of Zhejiang province at the time, and Beijing's mayor, Wang Qishan (who later became premier under Xi Jinping). Zhou Yongkang, the former Minister of Public Security, successfully endorsed the surveillance function of the Beijing model in 2010 (Mittelstaedt 2022, 7). Yet even earlier local officials in Shanghai and Nanjing went to Dongcheng district to learn from Beijing's experience (Chen 2006, 347–67).

In 2005, the National Ministry of Construction (which became the Ministry of Housing and Rural-Urban Development in 2008) extended the Dongcheng grid experiment to

fifty-one cities and districts in three batches (Chen 2008). Included in batch one were Shenzhen, Chengdu, Hangzhou, and in Shanghai, Luwan district. Urumchi in Xinjiang was in the third batch, launched in 2007, notably before violence broke out in Urumchi in 2009 (Wu 2014). However, the spread of the grid nationwide demonstrates only selective adoption of the Dongcheng model with considerable local variation, experimentation, and reinterpretation, resulting in larger or smaller grids. Among pertinent examples at the district level, in a wave of mergers to create larger districts, the State Council approved the merger of Chongwen district into Dongcheng, which expanded Dongcheng district to 41.84 km^2 in 2010.

From the adoption of the geographical coordinate system to the determination of the "right size," Chen introduced the grid based on the extension of the spatial governance structure of the local administrative divisions. Chen published his work in a monograph, *Gridding: The New Model of Urban Management* (网格化 – 城市管理新模式) with Peking University Press in 2006. An endorsement by Chen Shupeng 陈述彭, leading scholar of GIS research in China, appears on the back cover of the book.

Telescoping the state spatial structure to the grid

The early Dongcheng experiment can be understood as the indigenized implementation of new information technology for optimization of spatial governance and administration of public infrastructure and the urban environment. The promotion of the grid nationwide by the central government, since 2013, signals the further transformation of the grid as an extension of the state spatial structure of local governance. Unlike the administrative divisions, in which government institutions are physically present and institutionally scaffolded, the grid and the grid technology reproduce the authority of government institutions through virtual networks. The full array of relevant government

22

institutions—city district, *jiedao* and *shequ*—network through the technological administration of grid space.

In 2013 at the Third Plenary Session of the 18th National Congress, Xi Jinping called for the construction a new "comprehensive service and management platform at the grassroots" (*jiceng zonghe fuwu guanli pingtai* 基层综合服务管理平台), in which grid management would be a key measure. The grassroots reform is an integral element of the general injunction for the "modernization of China's governance system and capacity," in addition to adjustment of the administrative divisions to optimize government organizational structure. Its goals include the expansion of the objects of grid functions, from public infrastructure and city environment items to characteristics and conditions of local society. In this line of thought, the grid provides social services, collects information on society, and is expected to facilitate new relations between the party, the government, and the people (CCP Central Committee 2013, 2019). In 2019, the CCP Central Committee reemphasized this programmatic work and its technological basis in the grid system.

In the process, the central government redefined the spatial scope of the grid from a responsibility space for public infrastructure and city environment maintenance to a wider-ranging information technology that encompasses people (*ren* 人), places (*di* 地), issues (*shi* 事), material items (*wu* 物), and organization (*zuzhi* 组织) (CCP Central Committee and State Council 2015). The expansion of expectations attached to the grid space, encompassing the full range of local governance and its correlate functional institutions at upper levels, reconstitutes the grid as a de facto governing space at the grass roots.

The "people" of the grid correlates with the population density basis of grid area determination. In grid implementation since 2013, most places have adopted a scaled-down version of the *shequ* based on a number of households. The *shequ* is usually a residential area of 2000 to 5000 households and their demarcation is guided by the spatial distribution of

housing. A grid in residential areas has come to mean an area occupied by 200 to 500

households, which varies in area size depending on the housing footprint and density. It must

be noted that the household is a spatial unit and a spatial concept in the governing system—

the household or *hu* in the *shequ* and grid is the occupied residential apartment—not the

members of the household or potential extended family defined by *hukou*.[2] In some high-

density residential areas, a portion of a building or a building and its surrounding area may

constitute the grid space.

The expansion of grid tasks, and the connection of the grid space to other layers of

administrative divisions and levels of functional government institutions, is evident in *The*

First Round Training Manual for Community Grid Service Management in Guangzhou (广州

市城市社区网格化服务管理第一批入格事项培训手册). This 262-page manual published

by the Guangzhou Community Construction Leading Group, in June 2016, guides the

implementation of grid governance and grid operations training in Guangzhou. The manual

lists 176 task items in grid governance, supervised by fourteen government institutions at the

city level. Four institutions in a *shequ*, eight government bodies in a *jiedao*, and eleven

government institutions at the district level take responsibility for implementation of the 176

governing tasks (Guangzhou Community Construction Leading Group 2016). Table 1 lists

these institutions in the *shequ*, *jiedao,* district, and city. Following the logic of Figure 2, we

use numbers in the table to correlate governing institutions. In Figure 3, we put these

numbers into the ellipse of spatial governance structure to visualize the spatial-bureaucratic

relationship.

Table 1 ABOUT HERE

The manual is studied by government institutions in every district, *jiedao*, *zhen* and *shequ*. It shows that the work of the new grid space not only encompasses local government concerns in public security, public infrastructure, and city image maintenance, but also includes the collection of residents' information and their government social services and welfare provision, in addition to circulating a large amount of government information and guidance from multiple departments in *jiedao* and *shequ*. Grid practice in Guangzhou, involving some ten times more the number of functional government offices than Dongcheng, demonstrates how cities have scaled-up and expanded grid governance. The government institutions in charge of the social services, welfare provision, and information circulation, at different levels, have a new space-time framework that closes the distance with the people.

Based on the information in the Guangzhou manual, Figure 3 shows the spatial and hierarchical relations of all the district-, *jiedao*- and *shequ*-level institutions before and after grid implementation. The numbers in Figure 3 correlate with the numbers and corresponding institutions in Table 1. The result shows how grid-based governance changes the spatial governance structure and power relations. Before the grid, many government institutions at the district level, such as a district's Ethnic and Religious Affairs Office (number 15 in Table 1 and Figure 3), needed assistance from the district government, *jiedao* office, and *shequ* residents' committee to negotiate the compartmentation of the *jiedao* and *shequ* governing space for identification and resolution of local issues. For instance, grid-based governance reports directly to the district's Ethnic and Religious Affairs Office and thus contributes to overcoming the spatial-temporal contradictions embedded in the historic horizontal and

vertical enforcement dilemmas. Grid functions have been expanding with integration of information needs of more government bureaucracies.

Figure 3 ABOUT HERE

Since the 2020 coronavirus outbreak, more enforcement rights related to disease control were allocated to the *jiedao* and *shequ*. The grid space facilitated the *shequ* residents' committee and the *jiedao* office to implement new policies, survey residents' health, allocate public resources, and provide government services (Jiang 2021; Zhu, Zhu, and Jin 2021). With the policy of residential lockdown in many cities, the grid became a territorial unit and a responsibility space for the implementation of a dramatically increased number of tasks in a short time, from daily collecting of data on residents' health status to delivering food and groceries to households under quarantine. The small size of the grid clarifies the context of responsibilities and task implementation and makes surveillance of individuals in the local population more legible. Officials and party members from different government institutions and at different levels are also required to volunteer to serve the grass roots and participate in grid work (*Gongren ribao* 2020).

But the spatial-technological solution works better for some problems than others and the Chinese scholarship introduces a different kind of critique. Instead of focusing on the capacity for grid systems to gain surveillance over the people, like the state-society relations approach, Sun and Yu (2015), for instance, identify structural conditions that can limit new

capacities of the grid. Rather than solve *tiao-kuai* dilemmas, the grid platform or information collection center can act as a new *tiao* line in the district, since its effectiveness depends on leadership capacity of the district party secretary. Sun and Yu term this structural contradiction, between the design of the grid and its reality in practice, grid "involution" (*neijuan* 内卷) in which the system can become more internally complex rather than more efficient. It demonstrates how vertical line administration in the governing system reproduces hierarchical power relations.

Grid dynamism in local practice

The grid functions as a networked techno-spatial governing area that refines and magnifies spatial-hierarchical governance. The grid demarcation principle, whereby local governments territorialize grids according to local conditions, seeks "seamlessness" between grids and integrates ever-changing local conditions in dynamic urban development. Some comparison from local jurisdictions, including Zhangdian district, Zibo, and Changning district, Shanghai, demonstrate how local governments adjust the grid size and scale to realize functional capacity in grassroots governance.

In the context of rapid urbanization, new grids become established with newly constructed residential buildings. Xianru *shequ* in Zhangdian district, Zibo, is one of these places. Established in 2007, it encompasses the newly built Xianru Garden, a real-estate project of forty-seven residential buildings with 2,052 apartments, a garden, commercial shops, and a "club building," which is the location of the *shequ* residents' committee. Nearby, Jinsi Garden, with thirty-four buildings and 1,544 apartments, had also been completed. But not all the apartments had been sold and too few people had moved in, so Jinsi did not yet have the household numbers to establish a new *shequ*. In response, the Civil Affairs Department designated Jinsi Garden to lie within the Xianru governing space, even

though the two developments are about two kilometres apart and on opposite sides of a road. The distance represented extra work for Residents' Committee staff and an inconvenience for residents, which delayed *shequ* work.

The situation of Xianru *shequ* territory also reflects how grids were delineated. In 2014, Xianru *shequ* was divided into seven grids, five of which covered Xianru Garden. The other two encompassed Jinsi Garden. The two grids of Jinsi Garden were exclave grids that left the residents separated from their *shequ* officials, in conflict with the state vision to shorten the distance between local officials and residents. In 2016, the local party secretary stated the exclave grid demarcation was temporary since there were other real-estate projects under construction near Jinsi Garden, and as soon as they were finished and occupied, the upper-level government would establish a new *shequ* governing space separating the area of Jinsi Garden from Xianru *shequ*. This happened at the end of 2016 as predicted. Such exclave grid spaces, resulting from existing spatial governance structures and local residential conditions, are not uncommon. In Nanhai district, Foshan, the grid demarcation exercise resulted in exclave grids at a distance from the *shequ* governing space (Huang 2016, 67–8).

Meanwhile, the re-demarcation of the grids in Xianru *shequ* in 2016 is not the end of the story. The Xianru Shequ Residents' Committee received a new policy from upper-level government that required standardization in relation to the grid workers' pay, to be based on a standard quota of 500 households per grid in each *shequ*. Under this arrangement, with 2,052 households, Xianru *shequ* gained four grids' payment quota so it re-demarcated the five grids into four with attendant adjustments to each grid's territory. Jinsi Garden was reorganized into three grids under the leadership of the newly established *shequ*. In 2018, with two real-estate projects under construction adjacent to Xianru Garden, the staff of Xianru *shequ* expected to expand to take charge of them after the addition of new grids.

Grid demarcation practice in Changning district, Shanghai, demonstrates experimentation by local government to explore the potential of the grid space at a different level in the spatial governing structure according to local conditions. Based in part on its smaller districts, Shanghai has a history of concentrating more local power in the *jiedao* than other cities (Derleth and Koldyk 2004). In 2011 Changning district experimented with the grid as a subdivision of the *jiedao* governing space. Instead of dividing the *shequ* into several grids, Changning district government divided the *jiedao* into three to four grids, with four *shequ* to each grid (*Wenhuibao* 2014). In the process Changning effectively inserted a new level of administrative space between the *jiedao* and the *shequ* and established fifty-four grids, which was a substantial revision from 2006 when the district had 1459 grids after early adopting the 10,000 m^2 grid unit principle of the Dongcheng model. Changning's experiment was based on coping with extensive social governance tasks required by the Shanghai Expo, in 2010, to increase enforcement power of non-resident populations. The Changning experiment proved to be an innovation in grid design and won awards and positive media reports for its effectiveness (Shanghai Government 2017.

Variation in grid implementation exists by administrative division in general. Beijing and Shanghai are province-level cities and often serve as interpretive models for other cities. Party leaders of provinces, province-level cities, and major prefecture- and county-level cities typically seek to articulate distinctive approaches to local government, now including grid systems for urban management. Langfang city, Hebei province's prefecture-level city between Beijing and Tianjin, promotes organization of party branches and party groups in grid governance, which strengthens party work at the grass roots (*Hebei ribao* 2022). In addition, most provinces and many cities report more rural grids than urban grids. For instance, Yantai city in Shandong province reports 4,210 grids in urban areas and 7,168 grids in rural areas, which exemplifies the urban process under reform in which rural prefectures

and counties have been incrementally reestablished as cities and urban areas (*Yantai shike* 2022). Systematic national data on grids are not available, which underscores the importance of research on local governance.

Conclusion

The implementation of urban-administrative grids in *shequ*, beginning in the early 2000s, is a new move in China's history of territorial governance and administration. But it is not a new approach in China. Like *shequ*, space of the grid system in China is inseparable from the administrative divisions—the dynamic state spatial structure in which the governing system is embedded. The grid's relationship with the *shequ* confirms Liu's observation of the "administrative division-community" in which the *shequ* represents how the party-state treats local urban areas as space to be made legible for its interests. The spatial-technological function of the grid seeks to telescope governing capacity to even smaller territorial areas, generating networked administration that fills gaps in the spatial-administrative structure.

Assessment of the implementation of grids in *shequ* and their relations with the local administrative divisions demonstrates articulation and refinement of spatial governance in three main ways: the territorialization of localized grids in *shequ* through boundary articulation and rearticulation; scale relations between and among the lower-level administrative divisions at the district and subdistrict levels, the *shequ*, and grids; and digital networking among the relevant bureaucracies at multiple points in the *tiao-kuai* matrix. The urban grid is a territorialized space and a networked spatial relation among different levels of government and governing institutions. Nested within the hierarchy of administrative divisions, the grid seeks to achieve the goal of seamless grassroots governance, "horizontal to the edge, vertical to the end." Its digital dimension transcends hierarchical distance while

building volumetric capacity—not a cube or a block form but a morphing three-dimensional chunk of state techno-spatial capacity.

The grid process constitutes the dynamic implementation of the grid in space and time with immanent potential for iterative change. Grid experiments demonstrate the general principle of spatial governance through changes to subnational territory. Grid institutionalization establishes an effective new scale of administrative area governance that satisfies the "single-item veto" demand for seamless coverage and rapid response. From changing areas of grids and party expectations for seamless governance, to government handbooks on grid management, grid dynamism in practice demonstrates strategic territorial modification and informational expansion through increasing numbers of linked bureaucratic offices whose potential signals the potential for refinement of local governance. It demonstrates party-state commitment to enhanced governing power at the grassroots level.

Implementation of the grid overcomes spatial contradiction in the governance structure where rapid urban development meets the exigencies of the stability maintenance regime and needs to maintain the urban environment. In the national "modernization of China's governance system and capacity," the workings of the grid illuminate the complexity of the state spatial governing structure. The party now seeks to use technology to overcome governing inefficiencies across multiple levels of government and layers of bureaucracy. Workings of the urban grid system inform the classic problem of *tiao-kuai* relations. The urban grid system is a spatial solution to fragmentation in the bureaucracy, yet, as its critics argue, the leadership priority of party secretaries can forestall and impede grid functions. Such ever-emerging contradictions in the system contribute to rationales for changing the dimensions and conditions of governing areas.

With dynamic territorial areas and dynamic links to multiple sites of administration, the grid process demonstrates emerging spatial-technological capacity and continuities with

the administrative divisions. In the dynamic of the Chinese governing system, in which subnational territory in general is subject to change, grid governance, with its digital capacities, compels new questions about the changing nature of integrated spatial areas for local governance and administration. This geographical contribution to grid governance—the grid process—supports comparative research on territorialization of grid implementation, regional differences in grid innovation, grid systems in rural and urban areas, and impacts on power relations in governing hierarchies that grid systems hold the potential to transcend.

References

Cai, Yongshun. 2018. "Grid Management and Social Control in China." *Asia Dialogue*, 27 April. Accessed 1 Sept. 2022. https://theasiadialogue.com/2018/04/27/grid-management-and-social-control-in-china/

Cartier, Carolyn. 2013. "What's Territorial about China? From Geopolitical Narratives to the 'Administrative Area Economy'." *Eurasian Geography and Economics* 54 (1): 57–77. Doi.org /10.1080/15387216.2013.791198

Cartier, Carolyn. 2015. "Territorial Urbanization and the Party-State in China." *Territory, Politics, Governance*: 3 (3): 1-27. Doi.org/10.1080/21622671.2015.1005125.

Cartier, Carolyn. 2016. "A Political Economy of Rank: The Territorial Administrative Hierarchy and Leadership Mobility in Urban China." *Journal of Contemporary China* 25 (100): 529–546. Doi.org/10.1080/10670564.2015.1132771

Cartier, Carolyn. 2022. "'There are No Cities in China' and the Paradox of Urban Theory." *Eurasian Geography and Economics.* doi.org/10.1080/15387216.2022.2047750

CCP Central Committee 中国共产党中央委员会. 2013. "中共中央关于全面深化改革若干重大问题的决定" (Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform). 15 Nov. Accessed 28 Sept. 2022. http://www.gov.cn/jrzg/2013-11/15/content_2528179.htm

CCP Central Committee 中国共产党中央委员会. 2019. "中共中央关于坚持和完善中国特色社会主义制度推进国家治理体系和治理能力现代化若干重大问题的决定" (Decision of the Central Committee of the Communist Party of China on Adhering to and Perfecting the Socialist System with Chinese Characteristics and Promoting the Modernization of the National Governance System and Governance Capability). 5 Nov. Accessed 28 Sept. 2022. http://www.gov.cn/zhengce/2019-11/05/content_5449023.htm

CCP Central Office and State Council Office 中国共产党中央办公厅、国务院办公厅.

2015. "关于加强社会治安防控体系建设的意见" (Comments for Strengthening the

System of Social Security and Control). 13 Apr. Accessed 28 Sept. 2022.

http://www.gov.cn/xinwen/2015-04/13/content_2846013.htm

Chen, Hongmei 陈红梅. 2008. "东城网格化管理系统被全国 51 城市采用" (The Grid

Management System in Dongcheng is Applied to 51 Cities Nationwide). 北京日报

(Beijing Daily). 28 May. Accessed 17 Nov. 2020.

http://news.bjd.com.cn/cmzx/200805/t20080528_461651.htm

Chen, Huirong, and Sheena C. Greitens. 2022. "Information Capacity and Social Order: The

Local Politics of Information Integration in China." *Governance* 35 (2): 497–523.

doi.org/10.1111/gove.12592

Chen, Ping 陈平. 2006. 网格化: 城市管理新模式 (Gridding: The New Model of Urban

Management). Beijing: Peking University Press.

Derleth, James, and Daniel R Koldyk. 2004. "The *Shequ* Experiment: Grassroots Political

Reform in Urban China." *Journal of Contemporary China* 13 (41): 747–777.

Doi.org/10.1080/1067056042000281473

Gongren ribao 工人日报. 2020. "直击武汉大排查：各级党员干部下沉 社区排查不落一

人" (Direct to the Wuhan Investigation: All Party Members and Cadres at All Levels

are Sinking to *Shequ*), 工人日报 (Workers' Daily), 21 Feb. Accessed 30 Dec. 2020.

https://www.hubei.gov.cn/zhuanti/2020/gzxxgzbd/sz/202002/t20200221_2144320.sht

ml.

Guangzhou Community Construction Leading Group 广州市社区建设工作领导小组. 2016.

"广州市城市社区网格化服务管理第一批入格事项培训手册" (The First Round

Training Manual for Community Grid Service Management in Guangzhou).内部资料 (Internal material).

Guangzhou Water Affairs 广州水务. 2019. "广州颁布第 3 号总河长令: 推行网格化治水" (Guangzhou Promulgated the No. 3 River Leader Command: Promoting the Grid for Water Governance), 26 March. Accessed 12 July 2022. https://mp.weixin.qq.com/s/rU_LWZGT-EnX9WfPb_xqxw

Hägerstrand, Torsten. 1968. *Innovation Diffusion as a Spatial Process.* Chicago, IL: Chicago University Press.

Hebei ribao 河北日报. 2022. "2760 个社区网格实现党组织全覆盖" (Party Organization Extends to 2750 Grids). 26 July. Accessed 22 Sept. 2022. https://baijiahao.baidu.com/s?id=1739358041392047847&wfr=spider&for=pc.

Hoffman, Samantha. 2017. "Programming China: The Communist Party's Autonomic Approach to Managing State Security." MERICS China Monitor, 12 December. Accessed 27 Dec. 2022. https://merics.org/en/report/programming-china

Huang, Wenqian 黄文茜. 2016. "佛山市南海区社区网格化治理研究" (Research on the Community Grid Governance in Nanhai District of Foshan City). A Dissertation Submitted for the Degree of Master, South China University of Technology.

Jiang, Jue. 2021. "A Question of Human Rights or Human Left?—The 'People's War against COVID-19' under the 'Gridded Management' System in China." *Journal of Contemporary China* 31 (136): 491–504. Doi.org/10.1080/10670564.2021.1985827

Kan, Karita, and Juan Chen. 2021. "Rural Urbanization in China: Administrative Restructuring and the Livelihoods of Urbanized Rural Residents." *Journal of Contemporary China* 31 (136): 1–18. doi.org/10.1080/10670564.2021.1985841

Kan, Karita, and Hok Bun Ku. 2021. "Serving the People, Building the Party: Social Organizations and Party Work in China's Urban Villages." *The China Journal* 85 (1): 75–95. doi.org/10.1086/711182

Leibold, James. 2019. "Surveillance in China's Xinjiang Region: Ethnic Sorting, Coercion, and Inducement." *Journal of Contemporary China* 29 (121): 46–60. Doi.org/10.1080/10670564.2019.1621529

Lieberthal, Kenneth, and Michel Oksenberg. 1988. *Policy Making in China*. Princeton, NJ: Princeton University Press.

Lin, Wen. 2013. "Digitizing the Dragon Head, Geo-coding the Urban Landscape: GIS and the Transformation of China's Urban Governance." *Urban Geography* 34 (7): 901–922. Doi.org/10.1080/02723638.2013.812389

Liu, Junde 刘君德. 1996. 中国行政区划的理论与实践 (China's Administrative Divisions in Theory and Practice). Shanghai: East China Normal University Press.

Liu, Junde 刘君德. 2013. 中国大城市基层行政社区组织重构 (Reorganization of Grassroots Level Administrative Territories in China's Cities). Nanjing: Dongnan daxue chubanshe.

Liu, Junde 刘君德, and Jinzhao Fan 范今朝. 2015. 中国市制的历史演变与当代改革 (The Historical Evolution and Contemporary Reform of China's City System). Nanjing: Dongnan daxue chubanshe.

Martinez, Miguel Hidalgo, and Carolyn Cartier. 2017. "City as Province in China: The Territorial Urbanization of Chongqing." *Eurasian Geography and Economics* 58 (2): 201–230. Doi.org/10.1080/15387216.2017.1312474

Mertha, Andrew C. 2005. "China's 'Soft' Centralization: Shifting *Tiao*/*Kuai* Authority Relations." *The China Quarterly* 184: 791–810.doi.org/10.1017/S0305741005000500.

Ministry of Civil Affairs 民政部. 2018. "2018 年中华人民共和国县级以下行政区划变更
情况" (Changes of Administrative Divisions Below the County Level in 2018).
Accessed 31 Oct. 2022.

https://www.mca.gov.cn/article/sj/xzqh/2018/201903/201903011016.html

Mittelstaedt, Jean Christopher. 2022 "The Grid Management System in Contemporary China:
Grass-roots Governance in Social Surveillance and Service Provision." *China
Information* 36 (1): 3–22. Doi.org/10.1177/0920203X211011565

National People's Congress 全国人大常委会. 1954. "城市街道办事处组织条例" (City
Jiedao Office Regulation). 31 Dec. Accessed 26 Sept. 2022.

https://law.pkulaw.com/falv/3065876442db914dbdfb.html

National Remote Sensing Center of China 国家遥感中心. 2012. "遥感大记事 1991-2000"
(Big Events Record of the Remote Sensing Center 1991-2000). Accessed 28 April
2020.

http://www.nrscc.gov.cn/nrscc/ygzx30znzt/ygdsj/201203/t20120331_30274.html

National Standard 国家标准. 2013. "数字化城市管理信息系统: 第一部分: 单元网格"
(Information System for Digitized Supervision and Management of City: Part 1: Basic
Management Grid). Accessed 1 Feb.2022. http://
xzfw.jiyuan.gov.cn/xzxgxz/201807/P020180712547364786411.pdf.

NPR. 2020. "Transcript: NPR's Interview with Chinese Ambassador Cui Tiankai about the
Coronavirus." Nevada Public Radio. 14 Feb. Accessed 15 Feb. 2020.

https://www.npr.org/2020/02/14/805997445/transcript-nprs-interview-with-chinese-
ambassador-cui-tiankai-about-the-coronavi.%20

Pieke, Frank N. 2012. "The Communist Party and Social Management in China." *China
Information* 26 (2): 149–165. Doi.org/10.1163/9789004302488

Qian, Gang. 2018. "China Under the Grid." *China Media Project*, 7 Dec. Accessed 1 Sept. 2019. https://chinamediaproject.org/2018/12/07/china-under-the-grid/.

Qiao, Long. 2018. "China Setting up 'Grid' System to Monitor Ordinary People." Radio Free Asia, 10 April. Accessed 1 Sept. 2019. https://www.rfa.org/english/news/china/china-setting-up-grid-system-to-monitor-ordinary-people-04102018121018.html

Renminwang 人民网. 2015. "New Manhole Material Introduced to Prevent Theft." *People's Daily Online*. Accessed April 28 2020. http://en.people.cn/200503/13/eng20050313_176650.html

Schwarck, Edward. 2018. "Intelligence and Informatization: The Rise of the Ministry of Public Security in Intelligence Work in China." *The China Journal* 80 (1): 1–23. doi.org/10.1086/697089

Standing Committee of Shanghai People's Congress 上海是人民代表大会常务委员会. 2016. "上海市人民代表大会常务委员会公告第 44 号—上海市街道办事处条例" (Announcement of the Standing Committee of Shanghai People's Congress No.44-Regulations of the *Jiedao* office in Shanghai). No. 44, 14 Sept. 2016. Accessed 1 Oct. 2022. https://wenku.baidu.com/view/c267a250551252d380eb6294dd88d0d233d43c99.html

Standing Committee of Beijing People's Congress 北京市人民代表大会常务委员会. 2019. "北京市街道办事处条例" (Regulations of the *Jiedao* Office in Beijing). No. 20, 17 Nov. 2019. Accessed. 20 March 2020. http://www.gov.cn/xinwen/2019-12/17/content_5461763.htm

Shanghai Government 上海市政府. 2017. "沪三个项目获评 2017 中国人居环境范例奖，六年十九项目上榜" (3 Projects in Shanghai were Awarded the 2017 China Habitat Environment Model Award, and 19 Projects in 6 Years were Listed). 上海发布

(Shanghai releases). Nov.23. Accessed 31 Oct. 2022.

http://sh.sina.com.cn/news/m/2017-11-23/detail-ifypathz5386641.shtml

State Council 国务院. 1985. "国务院关于行政区划管理的规定" (State Council Regulations
on the Administrative Divisions). 15 Jan. Accessed 26 Sept. 2022.

http://www.gov.cn/test/2009-03/30/content_1272329.htm

State Council 国务院. 1986. "地名管理条例" (Regulations of Toponymy Management).
No.11, 23 Jan. 1986. Accessed 26 Sept. 2022.

https://www.mca.gov.cn/article/gk/fg/qhdm/201507/20150715848495.shtml

State Council 国务院. 2018. "行政区划管理条例" (Regulations of the Administrative
Divisions). Issue No. 704, 1 Nov. 2018. Accessed 26 Sept. 2022.

http://www.gov.cn/zhengce/content/2018-11/01/content_5336379.htm

State Council 国务院. 2020. "关于加强新型冠状病毒感染的肺炎疫情社区防控工作的通
知" (Notice of Strengthening the *Shequ* Control of the Covid-19). 25 Jan.. Accessed 26
Sept. 2022.

http://www.nhc.gov.cn/jkj/s3577/202001/dd1e502534004a8d88b6a10f329a3369.shtml

Sun, Baiying 孙柏瑛 and Yangming Yu 于扬铭. 2015. "网格化管理模式再审视" (A
Review of the Model for Grid Management). 南京社会科学 (Nanjing Journal of
Social Science). No. 4: 65–71.

Tang, Beibei. 2019. "Grid Governance in China's Urban Middle-class Neighbourhoods." *The
China Quarterly* 241: 1–19. doi.org/10.1017/S0305741019000821

Wan, Xiaoyuan. 2015. "Changing Governmentalities of Neighborhood Governance in China:
A Genealogical Exploration." *Critical Policy Studies* 9 (4): 454–472.
doi.org/10.1080/19460171.2015.1005109

Wenhuibao 文汇报. 2014. "长宁区江苏路社区(街道)根据居民不同需求划分网格" (The *Shequ* (*Jiedao*) of Jiangsu Road, Changning District, Divides the Grid according to the Different Needs of the Residents). Accessed 30 Dec. 2020. http://gov.eastday.com/renda/node9672/node9673/u1ai6053587.html

Wu, Qiang. 2014. "Urban Grid Management and Police State in China: A Brief Overview." *China Change*, 12 Aug. Accessed 1 Sept. 2019. https://chinachange.org/2013/08/08/the-urban-grid-management-and-police-state-in-china-a-brief-overview/.

Xinhuawang 新华网. 2004. "北京市政管委:新建 改扩建道路需装防盗井盖" (Beijing Administrative Committee: Newly-built, Reconstructed and Expanded Roads must be Equipped with Anti-theft Manhole Covers). Accessed 28 April 2020. http://news.163.com/41221/6/184V2MU90001122B.html

Xinkuaibao 新快报. 2014. "广州各街道将探索一支队伍综合执法" (*Jiedao* in Guangzhou Explore a New Administration Branch). 22 April. Accessed 26 Sept. 2022. https://china.huanqiu.com/article/9CaKrnJESMW

Yang, Dali L. 2017. "China's Troubled Quest for Order: Leadership, Organization and the Contradictions of the Stability Maintenance Regime." *Journal of Contemporary China* 26 (103): 35–53. Doi.org/10.1080/10670564.2016.1206279

Yantai shike 烟台时刻. 2022. "目前, 我是各区市网格总数增加到 13667 个" (Now, the Number of the Grid of Our City Increases to 13667). Accessed 22 Sept. 2022. http://ytsk.jiaodong.net/system/2021/09/13/014217347.shtml

Ye, Min 叶敏. 2016. "城市基层治理的条块协调: 正式政治与非正式政—来自上海的城市管理经验" (Making Coordinate Relationship of '*Tiao*/*Kuai*' in City Basic-level

Governance: Formal Politics and Informal Politics). 公共管理学报 (Journal of Public Management). No.2, 128-40.

Zang, Xiaowei. 2017. "How Cohesive is the Chinese Bureaucracy? A Case Study of Street-level Bureaucrats in China." *Public Administration and Development* 37 (3): 217–226. doi.org/10.1002/pad.1790

Zang, Xiaowei, and John Pratt. 2019. "Are Street-Level Bureaucrats in China Hardnosed Cops or Consultants? An Institutional Account of Policing Behavior in Autocracy." *Journal of Contemporary China,* 28 (116): 232–244. doi.org/10.1080/10670564.2018.1511394

Zhejiang Civil Affairs Bureau 浙江省民政厅. 2014. "关于乡镇街道行政区划调整的指导意见" (Guiding Information on Administrative Division Adjustment of Township, Town and *Jiedao*). No. 206, 13 Oct. Accessed 8 March 2020. http://115.231.51.203/html/zhengcefagui/zhejiangshengfaguiguizhang/2018/0709/2528.html

Zhu, Tianke, Xigang Zhu, and Jian Jin. 2021. "Grid governance in China under the COVID-19 Outbreak: Changing Neighborhood Governance." *Sustainability* 13 (13): 1–18. Doi.org/10.3390/su13137098

Zongzhiwei 综治委. 1992a. "关于实行社区治安综合治理一票否决权制的规定" (Decision on Implementing the System of Single-item Veto in the Comprehensive Management of Public Security). No 1, 13 Jan.. Accessed 26 Sept. 2022. http://www.reformdata.org/1992/0113/21743.shtml

*Zongzhiwe*i 综治委. 1992b. "关于社会治安综合治理工作实行属地管理原则的规定" (Decision on Implementing the 'Territorial Principle' in the Comprehensive Management of Public Security). No 1, 13 Jan.. Accessed 26 Sept. 2022. http://www.reformdata.org/1992/0113/21742.shtml

Notes

[1] Names of the *shequ* are pseudonyms. From local government interviews in Zibo, Shandong province, April 2018.

[2] The word *hu* 户 translated as "household" derives from the shape of a half-door, indicating a residential place with a door. Household registration of persons or family members in the *hukou* is complicated. One person can be the *hu* of *hukou* or the family may include many people and several residential apartments. The household in *hukou* registration is a political, sociological and anthropological concept, while the household number used to define *shequ* and the grid means the number of residential apartments.