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PLANNING MEGAREGIONAL FUTURES: SPATIAL IMAGINARIES AND MEGAREGION FORMATION IN CHINA

John Harrison*

Geography & Environment
Loughborough University
Loughborough
United Kingdom
LE11 3TU
j.harrison4@lboro.ac.uk

Hao Gu

School of Public Administration
Hunan University
Changsha
China
haogu@hnu.edu.cn

*Author for correspondence

Regional Studies

Abstract The expansion of globalising cities into larger city-regions and, most recently, megaregions is posing fundamental questions about how best to plan and govern twenty-first century urban regions. Nowhere is this challenge more acute than China, yet there is no clear understanding of Chinese megaregionalism. Debunking some inherent assumptions surrounding megaregions in China, this paper broadens our horizons beyond the narrow focus on what people have come to assume are China's megaregions to consider megaregionalism as an always evolving political-economic project. We argue the importance of distinguishing between *planning megaregions* (as discursive and imagined) and *megaregional planning* (as concrete and actual).

Key words Megaregions
China
Urban agglomerations
City clusters
Spatial imaginaries
Planning

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“if regional planning is challenging, the megaregional level would be even harder”
(Wheeler, 2015: 100).

“Although the importance of promoting urbanisation is fully recognised by political and academic circles, due to their late development – less than 35 years ago in China, which is around 80 years later than Western countries – the basic connotations, spatial delineation, degree of development, and construction foci of urban agglomerations in China are less certain and more contentious” (Fang, 2015: 1007).

INTRODUCTION: PLANNING MEGAREGIONAL FUTURES

The expansion of globalising cities into larger city-regions and, most recently, megaregions is posing fundamental questions about how best to plan and govern twenty-first century urban regions. Due to the relentless pace of urban economic expansion, emergent transmetropolitan landscapes – so-called ‘megaregions’, but often referred to by other monikers including mega-city regions (Xu and Yeh, 2011), multi-city regions (Wachsmuth, 2017), megalopolis (Lang and Knox, 2009), polycentric metropolis (Hall and Pain, 2006) and mega-conurbations (Friedmann and Sorenson, 2019) – are identified as globalisation’s newest urban form. With this, the clamour call that megaregions represent the ideal scale for policy intervention continues to grow. For their part, advocates argue that ever larger

urban-regional economies are superseding nations as the fundamental drivers of growth in the global economy (Florida et al., 2008; Khanna, 2016). What they cannot agree on is the spatiality of megaregions. This is important because how megaregions are imagined defines the spatial scale over which institutions have jurisdiction and responsibility, policies are designed and implemented for, and planning enacted.

Today, boosterist accounts of megaregions being globally competitive territories *par excellence* are offset by a growing body of critical work examining the politics of megaregion formation (Harrison and Hoyler, 2015; Schafran, 2014; Wachsmuth, 2017). These accounts do not deny the strong geoeconomic logic explaining the rise of megaregions, nor do they necessarily undermine the concept of megaregion as a new spatial and planning imaginary; instead, they reveal how actors increasingly 'megaregionalise' space to exert influence by encouraging the privileging of certain locations, policies and programmes when decisions on major new strategic investments for capital expansion, infrastructure and social provision are being made (Jonas and Moisio, 2018). Acting as an important point of confluence between these geoeconomic and geopolitical perspectives is the recognition that megaregional spaces are supported by inadequate urban economic infrastructure, planning and governance arrangements (Xu and Yeh, 2011; Kantor et al., 2012; Harrison and Hoyler, 2014). What we have arrived at is a situation whereby the megaregion concept is providing both the fuel and the vehicle for demands to design and implement more apropos forms of planning and governance.

Nowhere is the challenge of planning megaregional futures more acute than China. Today, China has an urban population of 831 million, a figure currently increasing by ~20 million per

annum. More than this, the 2017 urbanisation rate was 1.2 percentage points higher than 2016, and 6 percentage points higher than 2012, while over the past decade, the percentage urban population has increased from 45.9% to 59.6% (National Bureau of Statistics of China, 2019). Looking further ahead, the stated aim of the Communist Party of China (CPC) is for the urban population to reach 70% within the next decade. Not surprisingly, the concept of megaregion has become increasingly prominent in China's national and regional level plans for urbanisation and spatial development (Fang, 2015; Wu, 2015; see below)ⁱ. Nonetheless, despite an expanding body of work mobilising the concept of megaregion to understand China's urban development, for the most part this has been focused on their functionally-networked characteristics (by measuring integration via intra-regional city connectivity and degrees of polycentricity: Taubenböck and Wiesner, 2015; Li and Phelps, 2017; Zhang et al., 2018), territorial-scalar characteristics (by assessing their emergence as 'new state spaces': Wu, 2016, Sun and Chan, 2017, Li and Wu, 2018), or land use characteristics (by quantifying the rate of urban expansion and assessing its economic, social and environmental impact: Tan, 2017). Allied to this, there is a tendency in most intellectual and practical debates about planning and governing megaregions in China to focus on (one of) the three main coastal megaregions – the Pearl River Delta (PRD), Yangtze River Delta (YRD), and Beijing-Tianjin-Hebei (also known as Jing-Jin-Ji, or JJJ). What is missing is a clear understanding of the political project that is Chinese megaregionalism and its planning implications therefrom.

Starting from the position that we need to debunk some of the inherent assumptions surrounding megaregions in China, we aim to broaden our horizons beyond the narrow focus on what people have come to assume are China's megaregions to consider

megaregionalism in China for what it actually is: an always evolving political-economic project orchestrated by the CPC through a combination of spatial development strategies and urbanisation policies to manage the complex relationship between increased exposure to external global capitalist market forces while maintaining tight authoritarian control over internal domestic matters. We attach importance to this because understanding how the megaregion concept is being reimagined to manage urban and regional development is a “crucial, yet somewhat under-researched, dimension of megaregional research” (Harrison and Hoyler, 2015: 22). China is no different, with the selection of megaregions increasingly “subject to strong government leadership” and departing from the basic premise of their development (Fang, 2015: 1014). All of which raises a fundamental question, namely: can we actually plan megaregional futures?

The aim of the paper is to reveal the largely untold story of megaregion formation in China and consider its planning implications. To achieve this, Section 2 offers a brief history of the link between megaregions and planning, identifying the importance of recognising the politics of megaregion formation, before setting the context for understanding how the politics of megaregionalism has risen to prominence alongside China’s urban expansion. Analysing the evolving cartographic representation of China’s attempts to megaregionalise national urban systems from 2005 onwards, Section 3 examines how and why the megaregion concept is being mobilised, adapted and moulded on behalf of the state and its interests. Finally, in Section 4, we distinguish between *planning megaregions* (as discursive and imagined) and *megaregional planning* (as concrete and actual) to make a series of wider points about the purpose of planning and the scope to plan megaregional futures, drawing

on a series of interviews with those directly involved in advising the framing of China's megaregions.

2. PLANNING MEGAREGIONAL PASTS, PRESENTS AND FUTURES

2.1 Megaregions and planning: a brief history

For over a century there has been a close link between megaregions and planningⁱⁱ. This dates to the pioneering Scottish town planner Patrick Geddes who, some forty or so years before Jean Gottmann, mobilised 'megalopolis' as a concept for understanding cities of exaggerated size and as a place when identifying the 500-mile urban corridor along the US Atlantic coast as the exemplar (Geddes, 1915). Adopted and subsequently developed by the American, Lewis Mumford, the link between megaregions and planning in the first half of the twentieth century saw a firm belief not in planning *for* megaregional futures but planning *to avoid* megaregions. The thinking was that to achieve the status of being a megaregion was not something to aspire to, rather it was a sure sign of imminent and cataclysmic disintegration (Mumford, 1938). In contrast, a new planning paradigm emerged for the second half of the twentieth century centred on the contribution of Jean Gottmann and his enthusiasm for megaregions epitomising the very essence of progressive urbanism (Gottmann, 1957). Despite their undoubted differences all three advocated comprehensive regional planning as opposed to piecemeal local planning confined to city limits.

The link between this era and the modern-day interest in megaregions is the British planner, Peter Hall. In his study of 'Megalopolis England', Hall (1973) highlights how Gottmann never clearly defined what he meant by 'megalopolis', and reveals how in England at least, while the functional existence of a megalopolis could be claimed to exist, its physical existence

had been denied by planning and the insistence on curbing urban sprawl. Three decades on, Hall returned to lead a major study documenting the characteristics of megaregions in Europe (Hall and Pain, 2006). This study demonstrated the profound consequences of megaregions for spatial planning and regional development in Europe, and, by implication, other parts of the world, because by this time megaregions were a ‘truly global concept’ (Harrison and Hoyler, 2015). Developments at this time in the US, where the Regional Plan Association had identified ten megaregions as key to their future competitive, Europe, for whom the London-Paris-Milan-Munich-Hamburg ‘pentagon’ was established through the European Spatial Development Perspective as its megaregional future, and Asia, where urban expansion and investment in infrastructure at the scale of urban megaregions (most notably high speed rail links), ensured that assessing the “usefulness of the megaregion and spatial planning” became an – and for some, *the* – urgent task for planners and policymakers alike (Ross, 2009: 3). Fuelled by boosterist accounts trumpeting megaregions as globalisation’s newest urban-economic form, alongside international organisations advocating how megaregions were coming to represent the ideal scale for twenty-first century spatial planning and policy intervention, this was also the time that China began to actively formulate a top-down national-level plan for urbanisation and spatial development centred on megaregions.

2.2 Rethinking the geography of megaregions: the politics of megaregion formation

Today, there is a growing convergence of academic interest in exposing the need to “rethink the geography of megaregions” for planning and governance purposes (Schafran, 2015: 90). This convergence is not especially new in regional studies per se but it does highlight once more the remarkable fissure that exists between the economics and politics of regions.

Looking retrospectively, in the 1990s it was a global mosaic of regions (Scott, 1998), then in the 2000s it was a network of city-regions (Scott, 2001), and now in the 2010s it is a brave new world of competitive megaregions (Florida et al., 2008) which are to be found front and centre of powerful and appealing 'new regionalist' claims that the nation-state, and the wider state system more generally, are being supplanted in globalisation. Each time a discourse of competitiveness underpins these new growth-oriented orthodoxies (Harrison, 2007), itself derived from the 'new economic geography' theory that growth in globalisation results from self-perpetuating agglomeration (or spatial concentration) in economically advantageous locations, and which could increasingly be seen permeating policymaking and planning practices as actors desperately seek to promote and sustain urban and regional development within their jurisdiction.

The implication is that political actors – most notably national state governments – are increasingly passive in, and responsive to, the megaregionalisation of geographical space. But this is not the case. For what has been demonstrated is just how active state (and other) actors are in promoting and sustaining these large-scale agglomerations (Harrison and Hoyler, 2015). Megaregions may be an urban-economic reality, but they are also a calculated political project. Accepting this, Jonas and Moisio (2018: 355) have taken to revealing how “[as the] concept becomes enrolled in the service of the state, it is in turn adapted and moulded to fit the state’s wider policy agendas”. From this vantage point, megaregions suddenly appear very different. They appear as the outcome of economic and political processesⁱⁱⁱ, something which requires a new narrative to be written if we are to genuinely understand the geography of megaregions, and accordingly, plan megaregional futures (cf. Scott, 2019).

It follows that if state territorial interests and geopolitical processes are essential elements in planning and governing megaregions then we must build them into our theories. Ergo, there is no better starting point for considering megaregional futures than China. For nowhere is the emergence of transmetropolitan polycentric urban regions more self-evident and yet planning coordination for megaregions “remains one of the most neglected policy areas in China” (Xu and Yeh, 2011: 214).

2.3 China’s megaregions: in search of a plan^{iv}

In the early 2000s, the Chinese central government embraced the global trend towards megaregions and began to actively megaregionalise the national space economy. This marked a significant change in approach because prior to this megaregional growth was actively discouraged à la Geddes and Mumford, rather than embraced à la Gottmann. To reveal the unfolding megaregion project in China we align our framing with Wu’s (2016) analysis of changing state spatial selectivity in China as centring on three distinct phases – state socialism (1949-1978), early market reform (1979-2000) and post-WTO (World Trade Organisation) market society (2001 to present).

1949-1978: centrally planned period of anti-urban ideology

In the pre-reform era, an emphasis on promoting balanced regional growth was linked to an anti-urban ideology that discouraged rural to urban migration in China. From the 1st Five Year Plan (1953-1957) a fundamental principal of strictly controlling the excessive growth of cities, especially the size of large cities, existed and remained all the way through to the 10th Five Year Plan (2001-2005). Urbanisation proceeded very slowly, with the spatial focus

prioritising China's interior rural areas and a small number of interior industrial cities. Politically, the planning system was very hierarchical, controlling and served to enforce state control. By implication, horizontal linkages were not considered important. Regions were dependent on their centres and inward looking, such that networked cities hardly existed.

1979-2000: post-reform economic transition and the onset of early megaregionalism

China's post-reform macroeconomic strategy shifted from equity-oriented balanced spatial development ideology to an efficiency-oriented competitiveness ideology based on facilitating economic growth by embracing more entrepreneurial modes of economic governance and capitalising on locational advantages. Part of this saw top-down interest in exploring horizontal linkages between cities and regions by recognising economic regions and establishing informal government coalitions and institutional alliances. A notable example, highlighted by Wu (2016), was the Shanghai Economic Region which was established by the State Council in 1982 to operate across ten cities and five provinces in the YRD and charged with preparing its own regional development strategy. Albeit centrally mandated, these economic regions were freed from the political control of the hierarchical planning frameworks for enforcing state control and encouraged to be more experimental and entrepreneurial in the pursuit of growth. Locational advantages derived from their industrial and infrastructure base resulted in the spatial focus for economic activities and resources switching from interior cities and rural areas to coastal cities. This said, politically, central government policy remained unchanged on the fundamental principle that the size of large cities should be strictly controlled, with the emphasis on actively expanding the size of small and medium-sized cities (Zhang, 2019).

2001-present: comprehensive reform and megaregions unleashed

In the early 2000s it was clearly unsustainable to promote economic growth focused on coastal cities while at the same time politically restricting large city growth. Having started to recognise the locational advantages of the PRD, YRD and JJJ as megaregional spaces in the 1980s and 1990s, the central government gradually began to plan accordingly. By the time of the 10th Five Year Plan (2001-2005), the fundamental principal of strictly controlling the size of large cities was abandoned in favour of promoting the coordinated development of large, medium and small-sized cities. This was not to be at the expense of interior cities and provinces but sought to capitalise on China's coastal megaregions by replicating their success through state support for targeted industrial planning and fiscal policies towards interior provinces, alongside a coordinated national strategy to develop horizontal linkages and networked cities.

China's 11th Five Year Plan (2006-10) went a stage further, advocating megaregions as "the main entity for driving urbanisation" and thus the "the main players" in how urban development should be planned. The critical distinction was that China's spatial planning framework was no longer centred on large individual cities and their urban expansion, but on functionality and the connecting of key cities, national-level megaregions and internationally-competitive megaregions in a nationally-networked urban system (Li and Jones, 2019). This coincided with, and was to be enabled by, the central government's *2004 Railway Network Plan* which called for four high-speed lines running north-south (verticals) and four lines running east-west (horizontal) to construct a high-speed rail network connecting China's largest cities by 2020^v. Further evidence for this strategy came in the

12th Five Year Plan (2011-15) which included two horizontal and three vertical axes of urbanisation intersected by megaregions.

Prompting the change from discriminating to embracing megaregion development were a series of economic (*competitiveness*) and political (*control*) factors:

- The widening gap between coastal and interior areas;
- The requirement for new models of economic growth as China's economy matured that went beyond the export-oriented 'workshop of the world' growth model that marked early post-reform expansion;
- The need to address the problem of political fragmentation caused by decentralisation in the 1980s and 1990s which had weakened the planning and governing capacities of China's largest urban regions;
- The belief that strategic planning at the megaregion scale was a key political strategy – for provincial and central governments – to regain and reassert control over local and regional development;
- The recognition that for all the endeavours to restrict large city growth, economic agglomeration continued to overcome state administrative controls; and
- The competition between provinces for national recognition escalating once they saw the three coastal megaregions securing preferential central government support by virtue of having the kitemark of being identified in planning and policy circles as a megaregion.

This last point is most evident in the current 13th Five Year Plan (2016-20). Megaregions remain the fundamental spatial unit for state planned urbanisation, but there is a refocusing

of attention on securing the international competitiveness of the three coastal megaregions over and above the development of national-level megaregions. More generally, megaregionality is now so rife in the Chinese psyche that it is “making entry to urban agglomerations into political projects” as actors see inclusion being key for cities to thrive, while exclusion is feared to bring about dependency and stunted growth (Fang, 2015: 1014; see below). Our argument is that at this most discursive level, we can see that the Chinese state is constantly dealing with the task of managing seemingly conflicting priorities that is planning *with* megaregions: namely, orchestrating how the megaregion concept can be mobilised to externally project their international competitiveness while simultaneously managing internal domestic challenges.

3. GOVERNING FUTURE URBAN SYSTEMS: PLANNING, IMAGINARIES AND THE POLITICS OF MEGAREGION FORMATION IN CHINA

Our aim in the remainder of the paper is to reveal how the megaregion concept is being mobilised in China. In this way we are directly responding to Jonas and Moisiu’s (2018: 353) contention that “state territorial interests and geopolitical processes remain for the most part absent from mainstream policy and planning literatures” on city-regionalism and megaregionalism by examining how and why the megaregion concept is being adapted and moulded on behalf of the state and its interests. To achieve this, we analyse the evolving cartographic representation of China’s attempts to megaregionalise the national urban systems plan from 2005 onwards through a series of representative maps. We do this because not only are cartographic representations powerful instruments in the planning process, they provide a lens for researchers to uncover the politics of state spatial planning – something Dühr (2007: 1) explains:

“Cartographic representations can help to focus dialogue and to shape discourses, but they may also be used to manipulate other participants in the process by distorting or highlighting certain facts [...] The decision on what should be ‘put on the map’, and how it is going to be presented, opens up great potential to shape discourse, to empower some parts of the public or the territory, and to disadvantage others.”

In much the same way, Boria (2008) introduces the notion of ‘geopolitical cartography’ to remind us of the persuasive potential of maps. For Boria, what matters is the ‘cartographic message’ because simplified cartographic visualisations are only used when there is the intention to communicate with a large audience. To this end, simplified maps cannot be gauged by technical standards such as cartographic precision and scientific accuracy but by their communicative effectiveness which is inherently open to subjectivity, persuasion and political bias.

From our perspective, cartographic representations are important in how they make visible the politics of ‘planned’ megaregionalism. They reveal how actors are actively megaregionalising space. They attempt to translate a complex reality to its simplified configuration. Tensions, conflicts, overlaps and contradictions are worked through and made complementary alternatives even though the empirical reality is very different. This is a deeply politicised process, one which is open to subjective and biased interpretations of spatial development trends, but which makes visible what are hitherto often concealed processes and interests.

Perhaps the most instructive part though is their potential to facilitate dialogue across different contexts. Recognising that megaregionalism takes on national and regionally specific forms, a key challenge is to establish ways that promote greater engagement and comparison across contexts and territories. Comparative regionalism places a requirement on common tools, shared vocabulary and clear analytical frameworks to enable the cross-fertilisation of ideas. We would argue that spatial maps are an important tool in facilitating this due to the ease of translation across, and comparison between, different geographic contexts.

To this end, the following section examines four spatial maps produced in the period since 2005 when the state government first produced a strategic spatial map of megaregions. The four maps were selected on the basis that they reflected the three key stages in the framing of China's megaregions – National Urban Systems Plan (2005-2006), National Main Functional Area Plan (2010-2014), and National New-Type Urbanisation Plan (2014-) – with two maps selected in the first stage to highlight the politics at play as the initial 'outline' vision quickly morphed into a heavily reworked version of essentially the same spatial map by the time the plan came to be 'adopted' only one year later.

Stage 1: National urban system planning and the politics of upscaling

Planning in China is a tripartite system. Since the 1990 City Planning Act, the Ministry of Housing and Urban-Rural Development (MOHURD^{vi}) has been responsible for urban and regional planning, and the preparation of a national urban system plan to guide provincial urban system planning and urban master-planning. In 1998 responsibility for land use

planning was with the Ministry of Land Resources, now part of the new Ministry of Natural Resources established in 2018. Finally, there is the National Development Reform Commission (NDRC) who have been preparing five year social and economic development plans since 1953^{vii}. Each has had an important role in shaping megaregionalism as a political project, beginning in 2005 when MOHURD started to prepare the National Urban System Plan (2005-2020).

The 2005-2020 plan was significant in upscaling the spatial framing of urban systems planning and marked the first time the state government produced a strategic spatial map of megaregions (Figure 1). The 2005 outline map proposes a 3+4+4+13 model, emphasising the strategic importance of the three main internationally-competitive megaregions (PRD, YRD, JJJ – denoted by an extra-large red circle), four national-level megaregions (Liaozhongnan, Wuhan, Xi'an, Chengdu-Chongqing – large red circle), four regional-level megaregions (Shandong, Haixia, Zhengzhou, Changsha-Zhuzhou-Xiangtan – medium orange circle), with a further 13 developing urban agglomerations (small blue circle). The three coastal megaregions are each shown to contain a network of cities comprising a combination of globally-nationally important (red dots) and regional-level cities (green dots), while 19 of the remaining 21 comprise a single regional-level city. Alongside this is an infrastructure framework based on 4 vertical + 4 horizontal axes, and nationally differentiated into three levels: a primary coastal megaregion belt connecting JJJ-YRD-PRD, secondary belts connecting all 24 urban agglomerations, and tertiary links connecting with regional-level cities located outside of urban agglomerations and border cities.

By 2006 the discursive framing of China's megaregions already showed signs of shifting priorities. The National Urban Systems Plan (2006-2020) adopted map changed from a 3+4+4+13 urban structure to a much simpler 3+14 model (Figure 2). The plan assigns far more strategic importance to the three coastal megaregions PRD-YRD-JJJ by effectively removing second-tier megaregions. In 2005 the national-level megaregions were identified by the same red circle as PRD-YRD-JJJ. The only differentiation was the size of the symbol. In 2006, the red circle symbol is reserved for PRD-YRD-JJJ and increases in size, while at the same time Liaozhongnan, Wuhan, Xi'an and Chengdu-Chongqing are now demarcated by the smaller green circle previously assigned to third-tier megaregions. Special status in the spatial framing is further enabled with the 'belt' symbol reserved solely for the coastal belt connecting PRD-YRD-JJJ, with all second-tier infrastructure seeing the secondary urban belt symbolism replaced and represented by primary links. A series of additional connecting lines are added in the west and north east. A second notable development is the declassification of seven regional-level agglomerations: one is captured by the enlarged YRD megaregion while the other six – each located towards the western and northern edge of megaregionalised East China – appear only as regionally important cities.

The problem facing MOHURD was that for its national urban systems planning to become more than a rhetorical and discursive framing device it would require the NDRC to support and develop it into a national economic development strategy. This is because although MOHURD is an important institutional component in China's tripartite planning system, it lacked the power to directly implement policy and this plan was never enshrined in statutory planning practice.

Stage 2: National Main Functional Area Planning – a new ‘scientific’ approach to megaregional planning

In 2006 the State Council empowered NDRC to prepare the National Main Functional Area Plan (*zhuti gongnengqu guihua*). Published in 2010, this plan gained traction because unlike MOHURD, NDRC has the authority over economic development and resource allocation to start putting theory into practice. Once more megaregions were the fundamental basis for the spatial structure, but in stark contrast to the hierarchy of megaregions created by MOHURD, the NDRC vision is of a far more horizontal and spatially balanced urban system (Figure 3). The number of NDRC megaregional spaces (21) is midway between the 2005 (24) and 2006 (17) MOHURD plans, but no differentiation is made between any of the 21 megaregions, 37 cities, or axes connecting them. NDRC also replace the MOHURD base map of three macro-regions – West, Central, East, which were coloured light-mid-deep yellow to represent their degree of urban-industrial development – with China’s underlying ecological footprint. The major lines on the base map are no longer political-administrative boundaries, which have been removed entirely, but rivers and topography. And instead of three levels of belts and axes, only one appears, with smaller functional links removed to leave only two horizontal and three vertical major axes connecting all but one megaregion – Lhasa in Tibet.

All of which reflects NDRCs endeavour to depoliticise the new spatial imaginary of China’s megaregions, aided and abetted by a new ‘scientific’ approach to delimiting megaregions (Fan et al., 2012). But this belies what remained a deeply politicised vision. First and most obviously, the spatial differentiation of China’s megaregions became very confusing as JJJ (rebranded as the Bohai Economic Rim) was represented by far the largest megaregional configuration, the YRD becomes comparable to the neighbouring Middle Yangtze

megaregion of Wuhan-Nanchang-Changsha, and the PRD appears as one of the smaller megaregions. This is despite JJJ-PRD-YRD continuing to be singled out in the plan itself as being of superior strategic importance.

The primary intention of NDRCs plan was to spatially manage development through identifying four main functional areas: *prioritised* for industrial and urban growth; *optimised* for industrial areas which require moving away from resource-intensive modes; *restricted* due to ecological concerns; and, *prohibited* where development is not permitted. This zoning was applied to megaregions in two ways: PRD-YRD-JJJ were identified as development-optimised megaregions, with the remaining 18 megaregions earmarked for development-prioritised (Fan et al., 2012); and, megaregions were the zones identified for growth and upgrading, but prohibited in ecological zones for containment and preservation. Within this reaffirmation of PRD-YRD-JJJ as distinct megaregions, there was though a singling out of JJJ as “the *main region* in which China participates in economic globalization” and reflected in the importance afforded to this megaregion in Figure 3 (State Council, 2010: emphasis added).

A deeper analysis of the NDRC map reveals many more politicised aspects. First, and although the axes of development have been flattened to remove any prioritisation, some primary links from the MOHURD maps are removed altogether (Nanning-Kuming, Chengdu-Lanzhou, Guiyang-Changsha-Nanchang-Ningbo), while others have been upgraded (Chongqing-Xi'an) or added (Xi'an-Yinchuan). Second, Wuhan, Changsha and Nanchang which were previously separate regions are conjoined to form the Middle Yangtze megaregion; while further north, the much more proximate cities of Taiyuan and

Shijiazhuang remain separate due, in part, to the latter being in Hebei and more aligned with JJJ. Perhaps most revealing is how despite the 'Belt and Road' initiative providing the centrepiece of China's new foreign policy since 2013 – the basis of which is developing inter-connectivity of infrastructure development that places China as the focal point strategically, economically and politically – all axes now stop short of the border, such that all development is internalised and stops at the final megaregion on each axis.

Stage 3: National New Urbanisation – combining 'imagined' and 'actual' geographies of megaregions

March 2014 saw the CPC Central Committee State Council approve the implementation of China's *National New Urbanisation Plan (2014-2020)* which included the latest spatial vision for planning development in and through megaregions. This remained identical to Figure 3 except for the axes which were all removed (NDRC, 2014). Significant change was to come though when the NDRC prepared a new map for the 13th Five Year Plan (2016-2020) (Figure 4). The basic spatial pattern of three vertical and two horizontal axes remains unchanged, as does the geography. The major change is the representation of megaregions to appear even less hierarchical, and project a much more balanced urban system. First, the large JJJ megaregion has been reconfigured from one very large (JJJ) and two small megaregions (Shandong, Shijiazhuang) into three equally-sized megaregions (JJJ, Liao, Shandong) which also sees Shijiazhuang formally part of JJJ. This is indicative of a broader trend to equalise the size of megaregions, with all smaller megaregions now appearing visibly larger.

A second key observation is the transition from stylised representations of megaregions (Figure 1-3) to a new representation that comprises both stylised elements (the political

representation of megaregions – dashed orange lines – and development axes) and actual urban-economic and political geographies (Figure 4). This takes on three forms. First, we have an attempt to concretise the spatial form of urban agglomeration at the megaregion scale. By this we mean the introduction of new symbolism to map urban form as agglomeration, with differentiation between dense (red) and less-dense (pink), and often extending beyond the stylised denoting of the megaregion and its limits. Second, sees the return of administrative boundaries representing China's 23 provinces and five autonomous regions (*zìzhìqū*)^{viii}. This reveals how all except two can claim to be included in China's megaregional future by virtue of having one megaregion (or part thereof) within their jurisdiction. The two exceptions are the territories of Tibet and Taiwan which both contain key cities outside of megaregions (in Tibet, Lhasa has been downgraded from its previous megaregion status, while Taipei is recognised for the first time) alongside the special administrative regions (*tèbié xíngzhèng qū*) of Hong Kong and Macau. And related to this, third, cities that are not globally-nationally-regionally important are now evident for the first time. This includes significantly more cities located outside megaregions than it does within. Moreover, there is the added dimension which is that it is now far more difficult to identify those globally-nationally-regional important cities (red dot, red circle) vis-à-vis medium (white) and smaller-sized (dot) cities, and on the map overall.

What we have across these four spatial visions is a series of steps to flatten out the megaregionalisation of the Chinese space economy into what now appears to be a more spatially balanced and inclusive urban system. This has involved transitioning from an imaginative and symbolic representation of megaregionalisation to layering this evolving spatial imaginary on to actually existing geographies. In this way, Figure 4 also reveals

attempts to make complementary China's two spatial organising patterns: the *imagined* horizontal networked urban system centred on two-vertical, three-horizontal axes consisting of nineteen megaregion agglomerations; and the *actual* hierarchical spatial pattern of large, medium and small-sized cities around which traditional planning is oriented (Fang and Yu, 2016). It also belies the hidden geographies of megaregions.

4. MEGAREGIONALISM BEYOND THE MAP

Analysing the evolving cartographic representation of China's attempts to megaregionalise national urban systems reveals the politics of the megaregion formation in national spatial planning. What these maps cannot tell us, however, is what, if anything, makes these megaregional imaginaries meaningful in any significant way. In other words, can we actually "do" planning at the megaregion scale? It is with this in mind that we find it useful to distinguish between *planning megaregions* (as discursive and imagined) and *megaregional planning* (as concrete and actual): the former relating to what we have discussed to this point, whereas the latter directs us to where the debate needs to move towards. Indeed, drawing on this distinction allows us to offer some cautionary remarks about the extent to which we can begin to think about planning megaregional futures^{ix}.

First, we must never assume that planning competencies lay behind these cartographic representations of megaregions. As one well-placed interviewee reflected:

"JJJ, YRD, PRD are the three megaregional growth poles. Everyone wanted to be number four. But they just want the name, the title. It is actually meaningless. Even the three megaregion growth poles, there is no spatial policy for them."

While this interviewee might refer to the ‘meaningless’ pursuit of megaregional status when considering the planning strategy and competencies that accompany it, it is anything but meaningless to those stakeholders representing cities and regions located outside the three internationally recognised coastal megaregions. Indeed, for many, they are so fixated on the planning megaregions mantra that they neglect the purpose of planning altogether and consider megaregion status to be *the* achievement:

“Some local governments even treat whether their jurisdiction was elected to be part of an urban agglomeration [megaregion] as a performance assessment and political task ... If a city was absorbed into an urban agglomeration [megaregion], it will be treated as a victory. If not, it will induce a lot of complaints” (Fang and Yu, 2016: 185).

As one interviewee went on to explain:

“The name means nothing. But for local governors, if others have it, they say ‘we need it’. Hunan province didn’t want one, but when they found out that other provinces had it, they wanted it too.”

While it may be possible to point to examples of megaregional planning, what this reveals is the link between ‘megaregions’ and ‘planning’ does not always result in megaregional planning – or even planning at the megaregion scale. At worst they are the latest in a long line of growth-oriented, competitiveness-fuelled, games that distract from the purpose of

planning. At best we would have to consider some of these megaregions to be anticipatory planning and governance spaces, that is, imaginaries constructed in the hope that planning competencies and governance capacity might follow to institutionalize actual planning practice at this spatial scale. Either way, you would be hard pushed to say megaregions amount to a coherent planning space and tool.

Second, we must never assume the megaregion(s) under investigation: for as Section 3 reveals, there is no fixed geography to megaregionalism. Despite the underlying economic logic for megaregions remaining pretty constant across space and time, the politics of megaregionalism are always in a state of dynamic flux. Understanding how and why actors' endeavours to megaregionalise space result in the megaregional geographies they do might not be so important when it comes to planning megaregions, they can however provide meaningful windows to understanding the competing pressures on the state at any one time and how they plan to harness the megaregion concept as a "geopolitical device not simply to manage domestic problems of territorial distribution but also to promote the international competitiveness and territorial integrity of the nation-state" (Li and Jonas, 2019: 71). In such a scenario, we must always consider the politics of spatial planning because as this interviewee reveals:

"In the western area, according to theoretical definition, it is not a real agglomeration [megaregion]. They are using it politically because we should have something in the national plan. They are always thinking about political balance".

Third, the focus on planning and megaregions is a prime example of how we have arguably forgotten that there is a purpose for regional planning beyond growth and infrastructure roll-out (Harrison et al., 2020). In the case of China, this interviewee reveals how:

“For the railway and the highway system and airport, we are starting to see local government talking about the need to see the city cluster [megaregion] and integrating things, but outside of this there are no discussions.”

This aligns with developments globally whereby investing in infrastructure to enable supply chain expansion has quickly become the basic principle for planned urban-economic expansion and underpinned the rise of new megaregional spaces of planning and governance (Wachsmuth, 2017). But with it comes a recognition that although infrastructure can unite otherwise disparate actors in collective action at the megaregion scale it is only one activity and the chance of more holistic growth strategies are unlikely to be enabled by megaregionalism (Wheeler, 2015). The rise of megaregions and the notion of planning megaregional futures will likely therefore magnify the planning-growth-infrastructure axis as opposed to adding weight to those arguing – rightly in our view – that there is a purpose for regional planning beyond simply growth and infrastructure roll-out.

Fourth, it would be seriously misleading to imply that because China has successful megaregions and a planned economy, they have megaregional planning in place and a coherent plan for so doing. Figures 1-4 reveal, at one level, the evolving and at times contradictory nature of the discursive framing of megaregions. At another level, our

interviews reveal the practical challenges of embedding megaregions into China's extant institutional landscape:

"Since the 11th Five Year Plan we said we should have major functional zones but in fact we just had some concept. The policy did not follow the zones. And the problem is these functional zones do not relate to urban agglomerations [megaregions]."

"We talk about why we need this type of [megaregional] plan. We use a lot of ideas from Europe's Spatial Development Perspectives and the NUTs regions. But what is the base unit for China? Is it the provinces? Is it the city? Is it the county? In Europe it is just the NUTs regions. In China there are no clear units. This is why the policies and plans for urban agglomerations [megaregions] cannot be implemented properly because where is the unit?"

Of course, the lack of clear units for Chinese megaregions is just one of the many factors that impedes the implementation of megaregion planning in China (others include, for instance, the lack of responsible government bodies, competition among different cities within the same region, which have previously been discussed at length by others – see Li and Jonas, 2019; Sun and Chan, 2017; Wu, 2016) but we choose to focus on this one in particular because the final quote brings us to a fifth remark: who is learning from whom with regards to how to plan? In the 2000s when the Regional Plan Association launched their America 2050 megaregion programme, it was framed in terms of responding and learning from what they saw as their 'competitors' in Western Europe and South East Asia were already succeeding at regarding infrastructure investment in high-speed rail across

extended urban areas. In the United Kingdom, new megaregional imaginaries such as the Northern Powerhouse are being constructed around what actors see as the ‘incredible feat’ of China’s recent economic development, such that following China’s megaregion development is what the then Chancellor of the Exchequer, George Osborne, lauded as being “precisely what we’re trying to achieve ... with our great industrial cities of the north of England” by connecting them up and framing them as a new megaregional space (Osborne, 2015). And yet while everywhere else is seemingly looking to China, the Chinese are looking the other way, as this interviewee explains:

“In China we do not have a real national spatial plan. We make policies based on some economic data and population data – density, growth rates – and physical landscape. The Development Research Centre think that Germany has some very good national spatial plans and we are trying to convince our leaders of this.”

All in all, then, while the perception of planning megaregional futures may exist, the practice suggests there is a long way to go before we can reasonably argue that megaregional planning exists in any meaningful way. What it amounts to is a narrow focus on infrastructure-enabled growth, and a discourse to exert influence, as this interviewee neatly surmises:

“Currently, it [megaregional status] is nothing other than a bargaining tool. It is very important when trying to get approvals from central government. That is why the local governor likes to put some beautiful name to it when making their case. If we

have some title this is very good reason why we can get approval. Beyond that? I am not sure.”

In this way, megaregions *are* a planning tool but not for planning megaregions per se, rather they are a way of enabling (some aspects of) what actors have otherwise planned for by providing the case for approval and investment.

4. CONCLUSION: LOOKING AHEAD

This article opens debates about the hitherto untold story of megaregion formation in China and its planning implications. Focusing on the Chinese state governments attempts to megaregionalise their national space economy, our paper contributes to wider debates recognising the need to rethink the geography of megaregions for planning and governance purposes (Schafran, 2015). Our approach of using cartographic representations of China’s evolving megaregional geography has provided a lens through which to reveal the politics of spatial planning at the scale of megaregions, and a basis from which to interrogate the capacity for planning megaregional futures. From this our analysis highlights three important considerations when examining future links between ‘planning’ and ‘megaregions’.

First, and for all the economic boosterism surrounding megaregions, the mobilisation of megaregions as a planning tool owes as much to (national) territorial politics as it does economic logic. Indeed, as our analysis of the cartographic representations of China’s evolving megaregional geography reveals, with the passing of time the geographical basis

and form that planning with megaregions takes arguably becomes an entirely political game. The inherent problem is the distraction this causes from the actual practice of planning.

This brings us to our second point which is that understanding the geographical basis of megaregions in Chinese urban and regional planning tells us more about Chinese spatial politics than it does about megaregional planning per se. As a spatial planning concept, megaregions are mobilised and moulded by the CPC as part of an evolving political-economic project to manage the complex relationship between increased exposure to external global capitalist market forces while at the same time trying to maintain control over internal domestic matters. There is no doubt that this amounts to a version of planning, but in this guise it is far from reflecting the essence and hallmarks of planning, nor does it seem to engender the purpose and values we would hope for planning moving forward (Harrison et al., 2020).

This brings us to our final point which is the question of whether we can even begin to consider planning at the megaregion scale? At one level, planning at the regional level has had a mixed history of success so the idea that we can plan at the megaregional level presents a daunting challenge (Wheeler, 2015). And yet, at another level, this should not be presented as a question but arguably it must be framed as an assertion. This is because large extended urban landscapes – megaregions – are an empirical reality. They exist and forecasts for urbanisation indicate they will become more, not less, important as we move through this century. So, the question is not if we should, but how can we, plan in, with and for megaregions. Gottmann recognised this and so must we:

“Megalopolis is a spectacular and fascinating phenomenon. Facts so huge and so stubborn can only be caused by the convergence of many powerful and sustained forces ... [However, its] problems will not be solved by the easy wish of decentralization. The whole evolution of modern society may be at stake. *Society will have to learn to manage large urban regions*” (Gottmann, 1976: 110-111).

In this regard, we still have a long way to go.

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Figure 1: The ‘Outline’ National Urban System Plan 2005-2020 (Source: China Academy of Urban Planning and Design, 2005)

Figure 2: The ‘Adopted’ National Urban System Plan 2006-2020 (Source: Ministry of Construction, 2007: 45)

Figure 3: The National Main Functional Area Plan (Source: NDRC, 2010)

Figure 4: The National New-Type Urbanisation Plan (Source: NDRC, 2016: 64)

ENDNOTES

ⁱ It is important to note that in China *chengshiqun* is used to identify these large urban regions, which has been variously translated into English as ‘urban clusters’ and ‘urban agglomerations’ rather than megaregions. To avoid obvious confusion, in this paper we will refer to these urban-regional configurations as megaregions throughout.

ⁱⁱ Even before this, the very origin of the concept ‘megapolis’ owes itself to *Megalopolis*, the name given to a new city-state which a group of Ancient Greek’s planned for on the basis that it would develop on a grandiose scale (Baigent, 2004)

ⁱⁱⁱ We do not make any assertion here as to the balance of superiority between these two processes. This is a matter which must be resolved ex post and empirically rather than a priori and theoretically. We must also recognise that megaregions, as with all sociospatial configurations, are social constructs and therefore historically contingent.

^{iv} A full history of the transformation of Chinese cities and city-regions into megaregions is beyond the scope of this paper: see Fang (2015) or Zhang (2019).

^v In 2016, the NDRC announced this would be extended yet further to create an “eight vertical, eight horizontal” network.

^{vi} Previously the Ministry of Construction of which the China Academy of Urban Planning and Design (CAUPD) is a subsidiary.

^{vii} NDRC was formally established in 2003. Previously it fulfilled this function as the State Planning Commission (1952-1998) and State Development Planning Commission (1998-2003).

^{viii} Functional areas are removed at this point because they never related to megaregions, rather they overlapped meaning policy and planning could never follow both.

^{ix} This section draws on interviews conducted with actors selected because of their direct involvement in advising the framing of China’s megaregions. This is a small population and given the nature of doing qualitative research in China with public officials, to preserve anonymity we are required not to provide any identifying information in the attribution of interviews. All are engaged nationally and close of the process. Interviews were conducted in 2018 and lasted up to 2 hours. Audio recording was not permitted, meaning the conversations were recorded in note-form. Interviews were conducted in English, enabling almost complete notes to be transcribed for the full conversation. Some quotes appearing in the paper have been corrected for grammar, albeit there are no changes to any of the substantive content or emphasis.