# INFRASTRUCTURING DEVELOPMENT: AERIAL SILK ROADS AT TWO 'BELT AND ROAD' AIRPORTS

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**ABSTRACT** 

The Belt and Road Initiative is widely touted as China's answer to development through

international connectivity. Scholars have often linked the scheme to China's objectives of

crafting a new world order centred on itself and/or stabilizing its economy through externalizing

surplus capacity. While important in broadly framing China's relationship with the world, this

article posits that such a fixation on state-centric visions of development leaves open the door for

mistaking the Belt and Road Initiative as being made up of seamless projects imposed 'from

above'. Delving into the grounded execution of infrastructure planning, this article argues that

taking a practice approach on large-scale developmental schemes can more accurately shed light

on their internally fraught processes. Two airport projects in central China branded as part of the

country's 'aerial Silk Roads' are examined to exemplify these dynamics, with particular attention

paid to the airports' shifting conceptualizations, the competitive motivations behind their

(re)construction, and the social relations sustaining them. This article argues that closely tracking

the unfolding of a spectrum of infrastructure planning practices within specific projects can

demystify modern-day developmental programmes like the BRI, by revealing how their 'grand'

visions are often reinterpreted, altered and frustrated at local levels, even before they influence

the world.

**KEYWORDS**: Development, Infrastructure, Belt and Road Initiative, Airports, Aerial Silk

Roads, Planning Practice, China

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#### INTRODUCTION

Since its formal articulation in 2013, the Belt and Road Initiative (BRI) has captured the world's attention. Variously dubbed the 'twenty-first century Silk Road', 'the new Marshall Plan', and 'China's win-win foreign policy' (Shen, 2016), the BRI is widely touted as China's answer to international development and cooperation through an emphasis on transport connectivity and infrastructure building. Yet, while often represented as a coherent plot by state officials, the BRI is, in reality, a culmination of several piecemeal economic, political and social motivations that are extremely ad hoc and fragmented. As Summers (2016) asserts, China's BRI vision is not a singular policy hatched in the autumn of 2013, but a series of developmental ideas that came—and is still coming—to the fore in response to 'conceptual and material shifts in global capitalism', and the changing imperatives in China's economic development 'at the subnational level' (Summers, 2016: 1628-29).

Central to this understanding is the notion that contingency, and sometimes contradiction, pervades through the very foundations of what is arguably the most prominent developmental plan of our time (Sidaway and Woon, 2017). Although, on one level, identifiable as 'an emergent geopolitical culture' and outward projection of contemporary China (Lin et al, 2019), the BRI is also incredibly flexible on the inside—not only invoking vacillating narratives about China's relationship with the global economy (Andornino, 2017), but also proving increasingly imprecise about the transport systems that are needed to suture China to the world. Such an uncertain view mirrors longstanding discussions in development studies that (geo)economic programmes cannot be divorced from the unstable power/knowledge claims and discursive inventions of how, and what, growth trajectories *ought to* entail (see Arce and Long, 2000; Escobar, 1984). As Klenk

(2003: 100) further asserts, development is 'a historically specific project structured by myriad power asymmetries' based on a network of privileged concepts. As such, the BRI is nary a grand scheme with which China clearly charts a transregional path to development. Rather, it is made up of a sequence of shifting visions and competing developmental positions that tend to fragment more than unify.

This article extends this argument by positing that the centrality of infrastructure in the BRI—or, better, BRIs—constitutes an important key to explaining the uncertainties of modernday developmental agendas like the above. Literatures on development have often concentrated on the discursive effects of globalist (read: Western-centric) developmental norms (Silvey and Rankin, 2011), and, dialectically, the opposition that these same norms tend to elicit (Graef, 2013; Rao, 2018; Sen and Grown, 2013). But little sustained research exists to account for the fraught ways in which development nowadays is often, itself, actualized through highly practical and contingent infrastructural processes. Paying heed to these realities in relations to the BRI not only plugs knowledge gaps about what seems to be a coherent Chinese scheme; it also adds a much-needed grounded dimension for explicating the vacillations of varied discourses and modes of thinking in contemporary developmental programmes increasingly founded on infrastructure's promises (Anand et al., 2018). Accordingly, we borrow Firat's (2016) concept of 'infrastructural developmentalism' to shed light on the instabilities and slippages common to artefact-dependent growth programmes like the BRI. Through focusing on the contentious practices entailed in infrastructural undertakings (Bear, 2015; Dalakoglu, 2017; Harvey et al., 2016), we seek to elucidate how a confederacy of unpredictable local planning decisions feed (and change) facets of the BRI as they unfold. Adopting such a stance helps deepen current

apprehensions of development by affording it a life beyond ideas, visions or cultures, giving it a substance derived from everyday acts of doing.

The rest of this article fleshes out these ideas by tracing the planning practices of two airport projects in central China. While scholars rarely associate aviation with the Silk Road, this transport mode is intriguing precisely for the way it has found resonance with the BRI in recent years. Furthermore, as domestic projects echoing China's connectivity ambitions, the blend of local and provincial investment interests, coupled with collaborations with global actors, offer novel perspectives on how BRI rationalities are often distorted through sub-national conduits from within the country. The next section begins by surveying recent literatures on the BRI and distilling how scholars have preponderantly understood the scheme vis-à-vis China's political economy. Section three deepens this discussion by deploying the concept of 'infrastructural developmentalism', using it as a foil to think through the effects of infrastructure planning practices on developmental agendas. Following a methodological note, the fourth and most substantial section presents original research on how airport authorities in the aforementioned two cities have re-shaped the BRI's tenors through their thinking and (re)actions. Specifically, the section elucidates how local actors have i) re-conceptualized the BRI by adding to it an aerial significance; ii) splintered the national developmental plan through inter-city contest; and iii) (unevenly) cultivated social ties to establish themselves as preferential BRI nodes. The concluding section synthesizes these findings by reiterating the need to attend to the practices entailed in infrastructure planning, in order to grasp how supposedly 'grand' developmental visions often suffer internal slippages even before they spread.

#### UNDERSTANDING CHINA'S BELT AND ROAD INITIATIVE

As a broad national strategy, the Belt and Road Initiative (BRI) is often characterized as a large-scale infrastructural investment programme that the Chinese state is embarking on to foster stronger economic ties with countries in Eurasia. It was first mooted by Chinese President Xi Jinping as, separately, the (land-based) Silk Road Economic Belt (SREB) and the Maritime Silk Road Initiative (MSRI) in Kazakhstan (September 2013) and Indonesia (October 2013) respectively, before being consolidated under the appellation 一带一路—literally translating as 'One Belt, One Road' (OBOR)—or, officially today, the Belt and Road Initiative (BRI). Since then, the Chinese state has used the scheme as a touchpoint for advancing a number of highprofile investments in transport and inter-connectivity infrastructure—including railroads, highways and sea ports stretching from Central and Southeast Asia to East Africa and Europe. Between 2014 and 2017, the country's outward investment had risen over 50 percent on the back of this vision: from \$216 billion in the preceding four-year period to \$345 billion, involving, among others, the top five recipient countries of Pakistan, Bangladesh, Malaysia, Indonesia and Egypt (Joy-Pérez and Scissors, 2018). This repeated state-led marketing (not least by the Xi administration), coupled with fervent media representations, soon culminated in widely recognizable maps of China's multi-corridor sphere of influence (Figure 1). For many observers, the BRI aims to build a particular kind of transregional trade alliance predicated on Chinese infrastructural expansion.

<Figure 1 about here>

These political and media depictions have congealed particular imaginations of the BRI, which academia and think tanks have only further entrenched. Scholars from international relations and regional studies have, in particular, caricatured a BRI that is umbilically tied to China's developmental visions for the world. Of paramount concern is the way the BRI serves as a globalizing vehicle for the East Asian nation. Citing its intent to replicate the connective power of the ancient Silk Roads, Chaisse and Matsushita (2018) argue that the BRI constitutes a 'new' economic model seeking to use massive investment in infrastructure—as opposed to liberal international pacts and treaties—to accelerate industrial development along the Chinese-European axis. Nordin and Weissmann (2018) further this idea by framing the BRI in 'leadership' terms, noting that the BRI is not simply a programme aimed at promoting industrial growth, but is a strategy to help China attain transregional—and even global—dominance. While taking the guise of a cooperative framework, the BRI is, by these interpretations, a nationally directed scheme that seeks to position 'China as the new trailblazer of global capitalism' which it wants to lead 'better than the United States' (Nordin and Weissmann, 2018: 232).

Such discourses inevitably twin the project's developmental thrusts with issues of geopolitics and geoeconomics (Flint and Zhu, 2019). They signal the emergence of a new Sinocentric world order that tends to guide, if not dictate, the patterns of inter-state interaction and economic governance for development. For Callahan (2016: 237), the BRI harbours China's intents to forge a 'community of shared destiny'—one that would allow it to normalize the Chinese 'model of development' and 'superior' economic culture, and use them as resources for influencing 'the rules and norms of international institutions' globally. Chacko and Jayasuriya (2018), by contrast, draw a parallel between the BRI and the now-defunct US-led Trans-Pacific

Partnership, reckoning both schemes as examples of 'transnationalised state projects' serving to expand the economic space and political territory of the leading state. For China, this project is moreover abetted by a new financial vehicle—the Asian Infrastructure Investment Bank (AIIB)—aimed at overturning existing international investment rubrics in favour of a multilateral order led by China (Callaghan and Hubbard, 2016; Hameiri and Jones, 2018). Accounting for the BRI's extra-territorial reach in these manners not only intimates the entanglements between development and hegemonic power (Arce and Long, 2000; Escobar, 1984; Klenk, 2003); it also highlights the state's key role in pushing for these modernization agendas.

Another vein of scholarship detracts from these expansionist portrayals to, instead, explain the BRI's formation in relations to China's domestic economic woes. Explicitly, this corpus of work views the BRI as a national strategy for resolving crises within the Chinese political economy. It stresses less on the country's transregional capital accumulation tactics than on China's needs to relieve over-capacity and labour surpluses within its borders. By this understanding, the BRI is tantamount to a state-driven 'spatial fix' geared toward stabilizing *Chinese* development (Wang, 2016). It is a reaction to cyclical imbalances—of rising labour costs, 'large-scale social dislocation of domestic migrant workers, increasing regional income disparity,... severe environmental degradation... [and] large property bubbles'—that are now plaguing an overheated Chinese economy (Zhang, 2017: 317). For these scholars, the BRI is a strategic framework by which the state seeks to vent some of these economic pressures, by turning to markets beyond its territory.

Some scholars have embellished this idea by refracting the BRI through the lens of worldsystems capitalism. As Lee et al. (2018) sketch out one leading interpretation, the Chinese project is less an instance of geopolitical adventurism than a remedial response to global capitalism's threats to national economic growth and security. Given the unsustainability of China's long-term dependence on the US export market, especially after the 2007-2008 financial crisis, the BRI's utility in opening up new, untapped markets and enabling 'external spatial restructuring' to fuel future growth effectively resets Chinese development to make it more in tune with conditions of the 21st century (Lee et al., 2018: 426-27). Summers (2016) echoes this idea by likening the BRI to a reprise of state-led globalization in the post-Cold War era. He argues that China's proactive construction of connectivity networks is but a familiar tactic 'to speed up and reduce spatial barriers' so as to 'facilitate flows of capital and bring products to [new] market[s]', making its aims little different from developmental solutions of the West in years past (Summers, 2016: 1636). Seen in this light, these scholars are propounding another understanding of the BRI that emphasizes China's domestic problems and its concerted efforts to recalibrate its economic relations with the world (Andornino, 2017). Here, the BRI reflects a different impetus, but one that is nonetheless predicated on state agendas and visions.

Cumulative scholarship on the subject has offered some important insights on how China seeks to re-shape developmental pathways for itself both internationally and domestically through the BRI. Yet, amid these delineations, scholars have galvanized predominantly state-centric ideas about the BRI—of China either attempting to establish a new geopolitical order through international connectivity, or adjusting to world systems imbalances through external investments. While such renderings certainly help clarify Beijing's broad intents concerning

itself and the world, they have also had the effect of bolstering the myth of the BRI's coherence (as the Chinese state would have it), and of erasing possibilities of fragmented views within China. To be sure, deviations, complications and revisions are beginning to be foregrounded in burgeoning research on the BRI (see Jones and Zeng, 2019; Murton et al., 2016; Rippa, 2018, as well as a triple session on 'China's Belt and Road Initiative: Views from the Ground' at the 2018 American Association of Geographers Conference), but a preponderance of research has, till date, continued to adhere to a generalized—often state-centric—mode of theorization and expression. Hence, in one of a few in-depth looks at the BRI-in-practice, the following will delve more deeply into the intricacies of (one aspect of) the scheme's executions, in order to show how developmental agendas like the BRI are always fraught and less-than-certain because of their infrastructural underpinnings.

# INFRASTRUCTURAL DEVELOPMENTALISM AND INFRASTRUCTURING DEVELOPMENT

Broad-brushed caricatures of China's BRI are, to some extent, not surprising, mirroring a conventional mode of thinking concerning large-scale developmental projects. Such a propensity is well-rehearsed in critical development studies, which, too, has sought to sketch out the purposes and pernicious effects of 'grand' visions in 'Western' development and modernization efforts (Escobar, 1984; Silvey and Rankin, 2011). While scholars have elaborated on these views with attention to alternative developmental trajectories and subversive social movements (Graef, 2013; Rao, 2018; Sen and Grown, 2013), the inclination has remained to draw a clear distinction between development as planned and development as suffered. Pieterse (2000: 183) has

problematized this 'dichotomic thinking' by arguing that dividing up society into pro- and antidevelopment camps 'underrates the dialectics and the complexity of motives and motions in modernity and development'. What is needed is an avoidance of the reduction of development to 'a single and narrow meaning', or a 'consistency' that is evacuated of 'its polysemic realities' (Pieterse, 2000: 188). In the recent clamour to give meaning to the BRI, this reminder against singularizing development holds true as well.

What sets the Chinese scheme apart is its preference to use infrastructure as a means to achieve its goals (Chaisse and Matsushita, 2018). In recent years, infrastructure has provided an important inroad for understanding how contemporary development is executed and realized on the ground. Research subscribing to this view has not only pointed to the increasing conflation between material artefacts and socioeconomic progress; it has also highlighted the contentiousness with which infrastructure's supposed promises are carried out (Anand et al., 2018; Dalakoglu, 2017; Hirsh, 2016; Yarrow, 2017). Sensitive to the politics of infrastructure, these studies have thus variously shed light on the problems, frustrations and disjunctures hampering so-called modernization efforts at specific moments. Instructively, owing to its scale, involvement of multiple stakeholders and still-unfolding status (Jones and Zeng, 2019; Murton et al., 2016; Rippa, 2018), what the BRI can productively add to these conversations is a wide(r) range of overlapping practices that one can chart through a 'live', yet-unfinished infrastructural scheme. Indeed, as much as a geopolitical-cultural node appears to be coalescing in the thinking of the Chinese state (Lin et al., 2019), the BRI is, in reality, steered by an ongoing confederacy of practical drivers affecting an assortment of inter-connected infrastructures over time.

Here, Firat's (2016) concept of 'infrastructural developmentalism' can serve as a useful foil for addressing the fluid contingencies and uncertainties entailed in development's complex infrastructuring processes. Exemplifying Turkey's own efforts in fostering transregional integration between Europe, Asia and itself, Firat uses the term to denote a (similarly) strategic, yet fraught, model of economic (re)vitalization through transport connectivity. Her work illustrates how Turkish national leaders also envision using diverse resource-bridging technologies such as oil pipelines and energy ports to direct and derive economic benefits for the country, building what she calls 'political dreamscapes'—a hoped-for but never-sure network of client arrangements enabled by infrastructures (Firat, 2016: 82). Agreeing with her assessment on the unpredictability of such a large number of projects, Anand et al. (2018) reflect on the fragile promises of progress made by these 'precarious assemblies', arguing that infrastructures evolve, reconstitute and lead extremely contingent lives through their inception, (re)construction and sustenance. While affirming infrastructure's power in shaping developmental spaces, these writings thus cite the potential for clashing interests and 'an ongoing dynamic of competing options and negotiated decisions' (Firat, 2016: 90), especially when projects are arrayed to attain complex goals over a protracted time-period. This is where development also runs into tension with infrastructure's practices, as disagreements among stakeholders can leave such forms of infrastructure-based economic renovation susceptible to detours, improvisations, additions and revisions. Insofar as infrastructures can assume unintended meanings, develop unscripted purposes or become unviable, development predicated on these landscapes often becomes commensurably uncertain, following pathways that co-evolve with these material artefacts.

Seen as such, infrastructures need to be carefully unpacked for the practices that continually animate them. Harvey et al. (2016: 5) affirm this point when they argue that infrastructures are 'dynamic forms', enfolded through 'engineered (i.e. planned and purposefully crafted) [and] non-engineered (i.e. unplanned and emergent) activities straddling multiple registers 'over extended periods of time'—from their conceptualization to their motivations for (re)construction to the social relations sustaining them. On practices of conceptualization, Larkin (2013: 355) appositely reminds that infrastructures are often invested—either wilfully or opportunistically—with an aesthetics or poetics of signification that can be 'loosened from [their] technical function'. Harvey and Knox (2012) capture the power of these conjurations by adducing how state planners in Peru had gained 'passionate' support for two road projects in the mid-2000s, despite problems of shifting soils and water issues during construction. Attributing this support to the 'enchantments of infrastructure', they argue that the realization of enhanced connectivity in Peru was not simply a result of logical planning, but of particular idealized values—e.g. national integration—managing to spontaneously catch on due to clever marketing (see also Harvey and Knox, 2015). Elsewhere, Hirsh (2016: 70) makes a similar point in relations to airports, writing that these cross-border infrastructures are prized artefacts because of their (taught) 'aesthetic sensibilities' as harbingers of global elite-ness and prestige. Here, the practice of instilling particular conceptual values in infrastructures has led to these artefacts' precipitous validation, allowing them to accrue new meaning and purpose.

Beyond their initial conceptualization, infrastructural projects are also continually rehashed and motivated afresh in response to shifting trends, particularly competition from rivals. Butcher (2011) and Siemiatycki (2006) both evince this contestatory streak in

infrastructure by tracing the spread of metros in South Asia. Explicitly, they posit that paradigmatic public transport systems like metros are sometimes installed in 'Third World' cities not because no prior system existed, but because of political manoeuvres on planners' part to reengineer and enable their cities to rise the ranks of 'modernity' and 'efficiency'. Writing on airports, Lin (2019) likewise alludes to how infrastructural expansions are sometimes cued by inter-city duels, as managers are compelled to invest in new facilities in order to wrestle back passenger and cargo traffic lost to other hubs. The adoption and growth of infrastructural forms, often in relations to other locales, thus intimates that infrastructure planning is often (at least in part) motivated by technocratic attempts to arrest economic declines, or to, simply, not fall behind (Bear, 2015). These visceral responses and politically driven practices do not only incite further infrastructural spending, but also produce a form of material-based development that contingently unfolds vis-à-vis other places.

A third set of practices that infrastructures harbour relates to the social relations that underpin their viability. Referred to by Niewiadomski (2017: 3) as a 'complex multi-actor architecture' of agents, a constellation of mutually reinforcing human and nonhuman factors crucially maintains and sustains an infrastructure's functioning even after it is physically built—whether it be financial ties, interpersonal favours, or collaborative partnerships that lubricate business dealings and preferential treatment (Dalakoglu, 2017; Yu et al., 2012). But just as infrastructure relies on its agents to work seamlessly together to continue working, it is also acutely vulnerable to their non-cooperation and disintegration (Siemiatycki and Farooqi, 2012). Such precarious constitutions, and how they play out socially and agentically, can be a bane to the (dis)orders of infrastructurally driven development, whose 'teleological ideal' and 'imagined

futures' always lie in danger of breakdown and ruination (Yarrow, 2017: 568). An example of such unravelling is found in Latour's (1996) semi-fictional account of Aramis—a personal transit system of small automated vehicles running on guide-rails that Parisian planners had designed but failed to implement because of, among other things, a series of practical missteps, distrusts and aversions that later proved difficult to salvage. To the extent that all infrastructures are at risk of Aramis' fate, developmental visions built around these artefacts also have a distinct potential to come undone, leaving behind situations that are a mere shadow of 'what might have existed' (Yarrow, 2017: 568).

In itself, development is not a concept that is easily reducible to a singular discourse (Pieterse, 2000). This section has posited that, when combined with a confederacy of practices in infrastructure planning over time, development predicated on these unstable artefacts can become even more uncertain. Distilling insights from recent debates on infrastructure, we have developed here an understanding that foregrounds three dynamic sources of uncertainty attributable to these practices, concerning, after Harvey et al. (2016), infrastructures' shifting conceptualizations, their reactive (re)constructions and the volatile social relations behind their sustained functioning. To the extent that these practical junctures can alter the forms and effects of infrastructure, the trajectory of 'infrastructural developmentalism' (Firat, 2016) can also experience profound re-visions instead of being concretized. Indeed, contemporary schemes like the BRI, founded on a series of artefacts, require a new appreciation of how developmentalism of a more material kind is forged and unforged in grounded situations. Instead of a war of opposing ideals and norms, they are now realized at the interstices of infrastructure planning and its mundane practices.

#### **PAVING AERIAL SILK ROADS**

Seven years since Xi's official announcement on China's massive infrastructural programme, the inconclusiveness of the project is becoming clear. In that time, the scheme has accreted multiple—sometimes interchangeably used—nomenclatures, including SREB, MSRI, OBOR and, today, the BRI. Accompanying these nominal changes is a developmental project that is increasingly notable, too, for its mélange of departures and extensions, so much so that the Chinese state is now subsuming investments in the Arctic, Latin America and even cyberspace under what began as a Eurasian plot. Some scholars have attributed these deviations to China's growing clout and financial might. In particular, the birth of the AIIB—as a China-led multilateral loan facility—has not only spurred the deepening of international development finance markets (and hence the plausibility of more infrastructural projects); it has also allowed China to forge greater numbers of financial-cum-technical relationships with countries further afield, thus extending its global tentacles (Callaghan and Hubbard, 2016).

These financial drivers no doubt provide fodder for the BRI's seemingly endless expansion, but the actualization of these investment strategies also depend heavily on practical deliberations in infrastructure planning in order to identify 'appropriate' targets to which to channel funds. At the sub-national level, locating these targets may prove even more imperative, seeing that the tendency is for capital to gravitate toward coastal mega-cities, thereby requiring local lobbies to carve out unique investment niches for themselves (Hameiri and Jones, 2018; Yu et al., 2012). In this context, we use two ongoing airport expansion projects in central China to show how (changing) BRI visions cannot be estranged from these peripheral pursuits of alternative side-projects, sometimes even requiring these regions to resort to self-financing to

kickstart a new wave of 'infrastructural developmentalism'. Airports are, moreover, peculiar for the way they are grafted into imaginations of Silk Roads that, historically-speaking, were devoid of air travel. Indeed, it was our respondents' repeated invocations of the BRI during the data collection phase (originally for another project on air logistics) that had led to emergent questions about the relationship between air transport, infrastructure planning and China's (fluctuating) developmental objectives.

As our primary research method, semi-structured interviews provide an emic perspective on the practices and reasons behind infrastructural decision-making processes. Gathered over a two-year period from June 2016 to July 2018, we conducted 34 semi-structured interviews with government officials and commercial clients of the two airports in question. We selected these respondents purposively based on a sampling logic that coincides with our need to understand and illuminate the origins of infrastructural plans, including top- or middle-level government decision-makers and significant logistical partners that had an influence on policy. The interviews were conducted face-to-face in Mandarin, lasting 40 to 120 minutes each, and split nearly evenly—twenty versus fourteen respectively—across the two sites. Due to political and commercial sensitivity, and as part of the agreement with individual respondents to protect their identities, the two airports are anonymized and will hereafter be known as east-city and west-city, based on their locations.

Besides these interviews, we also conducted site visits to a trade convention in Shanghai (Transport Logistic China) in 2016—where the two airports sent representation—and to the aerodromes themselves in the summers of 2017 and 2018, including their planning offices, cargo

handling zones, and passenger terminals. These visits allowed us to gain a first-hand experience of the scale of the airport sites and future areas, as well as helped us fine-tune our interview questions. We further consulted a range of documentary materials, including investor relations publications, government and company websites, and Chinese news articles to thicken our understanding.

Data from these manifold sources were compared, analysed, selectively translated, and coded for common themes and significant events. Triangulation between these sources is important given the relatively small number of interviews, limited in large part by controlled access to Chinese government entities and (state-linked) industries. Typically, the authorities only allowed us to speak to mid- to senior-level individuals, which, although restrictive, dovetailed with our research goals. The various sources together yielded wide-ranging insights on the developmental conjurations, competitive motivations, and social relations at each airport. While this article's thesis does not require multi-sited research, comparing two datasets surfaced how imaginations and executions of so-called aerial Silk Roads emerged, converged and diverged between the two cities, casting into sharp relief the different values each airport places on the BRI.

### **Conjuring BRI Airports**

If the BRI was originally a vision founded on land-and-sea transport, local actors in central China have been introducing a new trope of aerial connectivity to its developmental logics. Gradually, this subtle (re)conceptualisation saw Civil Aviation Administration of China

(CAAC) chief, Li Jiaxiang, declare in 2015 that airport projects ought to be linked to the BRI as state policy, followed by President Xi's acknowledgment of China's parallel interest in building 'aerial Silk Roads' at the inaugural Belt and Road Forum in 2017. In that forum, Xi called on partner countries to 'promote land, maritime, *air* and *cyberspace* connectivity', in order to allow economies to 'open up' and 'achieve both economic growth and balanced development' with China (Xinhua, 2017; our emphasis). How did aviation, along with cyber-communications, come to be incorporated within a Silk Road plan that had hitherto been touted for its historical links with land-and-sea routes? While the flourishing of e-commerce in China and a financial boost from national and, to a lesser extent, foreign investors (e.g. Germany's Fraport AG) had certainly played a role, we argue that the BRI's expanded vision was also reacting to various sub-national authorities' attempts to conceptualize, or enchant national leaders with, an airport-linked logic (Harvey and Knox, 2012).

As second-tier urban agglomerations in the Chinese interior, east-city and west-city are two places that are deeply intertwined in this push for mega-airports. To catch up to the prosperous coastal regions, municipal and provincial governments at both locales have channelled large sums of investment into air infrastructures since the late-2000s, aiming to become choice hubs for air passengers and cargo in the country. While west-city airport—of which Fraport has a minority stake since 2007—managed to win the approval of the State Council<sup>1</sup> in 2011 to transform a rural site into an 'airport city' that is to become one of the largest air logistics trading facilities in West China, counterparts in east-city, just 500 kilometres away, sold a similar plan to the State Council in 2010 to build an even larger, 415-square-kilometre

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<sup>&</sup>lt;sup>1</sup> China's State Council, which oversees the State Taxation Administration, approves select large-scale local government projects.

'aerotropolis', with a projected annual throughput of 70 million passengers and three million tonnes of cargo by 2040. Striving to carve out logistical niches through (self-)financing (and imagining) gargantuan airport systems, both sites embody a popular approach among second-tier cities in staging economic revival through the aesthetic materiality of mega-infrastructures, designed to help them circumvent their landlocked locations, and, better yet, put them on the world map.

With the BRI's announcement in 2013, the said cities opportunistically and adaptively aligned their mega-airports with the nation's prevailing discourse, spontaneously conjuring new aspirational language that would render their infrastructures relevant in an age of Silk Road connectivity. According to a promotional publication for west-city, while the airport had, in 2012, pursued an independent strategy of becoming the 'Memphis of China' (a nod to Federal Express' hub in Tennessee), the BRI's unveiling saw local authorities stressing the airport's new potential as a node for Eurasian logistics and the 'starting point' and 'terminus' of China's 'historic Silk Road'. Subsequent imaginations of an 'aerial Silk Road' and official marketing of west-city airport, such as at the 2016 transport and logistics trade convention in Shanghai, as 'a prime air logistics hub oriented toward the Silk Road Economic Belt'<sup>2</sup> further recast the airport's significance in tune with national refrains. By further developing material links with 'classic' BRI destinations, such as Almaty (2016) and Kuala Lumpur (2014), west-city airport now no longer merely serves as a standalone station in a domestic network, but projects itself as an aerial enabler of the BRI.

<sup>&</sup>lt;sup>2</sup> Convention media, Transport Logistic China 2016, 14-16 June 2016.

These re-framings accrued a certain degree of 'enchantment' (Harvey and Knox, 2012) that sought to make the airport, and hence west-city's development, a nationally worthy cause.

One senior-level respondent with oversight of air cargo strategy explains the shift in the airport's conceptualization:

We are trying to delineate and design this [aerial Silk Road] network ... More than the overland Silk Road of old charted out by camel caravans, or the maritime sea route opened up by armadas, today's Belt and Road far exceeds these predecessors... Everyone now wants to lean on this concept... and we... are trying to complement these developments. What the future economy needs, we will supply, and we want to be BRI's aerial hub.<sup>3</sup>

West-city officials are seen here deliberately applying symbolic diacritics that would fit their airport within the nation's understanding of (land-and-sea) infrastructural developmentalism (Firat, 2016). Through these (re)conceptualizations, the push for a nationally strategic aerial hub would also eventually earn the city the designation of a 'new area' (新区) in 2014, affording it in-principle privileges from the central government in terms of planning priority and investment opportunities. This endorsement points not only to the city's success in attaining concessions for itself, but also how the conjuration of 'aerial Silk Roads' has subtly extended national discourses of BRI development in the process.

<sup>&</sup>lt;sup>3</sup> Interview, WC01, airport authority, 18 July 2017.

East-city exhibits a similar propensity to use its aerotropolis to enchant and make links with national (BRI) economic goals. Since 2013, the provincial-level airport planning group professes on its website that it aims to 'integrate' east-city airport 'into the nation's "One Belt, One Road" strategy', riding on the BRI's 'momentum' to achieve both 'eastward and westward development' for the country. As a planning director recounts how east-city played a part in impressing this idea on national policy:

The Silk Road idea didn't begin with us. For the maritime Silk Road, it doesn't apply here. For land, it is associated with Xi'An. For air, it is a recent invention... Didn't they just acknowledge it? It explicitly arose during the exchange between President Xi and [Luxembourgian] Prime Minister Bettel, when they agreed to deepen finance and production capacity cooperation, and to build an aerial Silk Road [through east-city]. This is also what we have been working on.<sup>4</sup>

While early iterations of the BRI did not have a role for east-city, local efforts to engage

Luxembourg to anchor one of its cargo carriers, Trans-Air (a pseudonym), in east-city produced
a spontaneously invented connectivity framework—dubbed '[east-city]—Luxembourg Silk

Road'—that the two heads-of-state would later come to herald during the bilateral exchange.

Injecting provincial funds to construct several new airport terminals for this purpose, east-city

officials did not only activate a new 'poetics' of signification with their infrastructure (Larkin,

2013), but also managed to rub off the airport's connectivity possibilities onto state discourses of

transregional development. To the extent that such local instigations trickle up to impact

<sup>&</sup>lt;sup>4</sup> Interview, EC01, airport authority, 13 July 2017.

decisions at higher levels, infrastructure also needs to be taken seriously for their ability to (re)animate and (re)produce broader developmental visions.

These continually changing interpretations inscribed upon infrastructure do not only show that China's developmental vision through the BRI is never *fait accompli*; they also reveal the power of the practice of infrastructural (re)conceptualizations and enchantment in shaping and reshaping economic game plans. Specific to the two cases, national and sub-national actors are seen flexibly experimenting with different infrastructural possibilities to derive new developmental (re)visions, goals and networks for the BRI. As these 'bottom-up' conjurations of aerial Silk Road airports progressively accrue, the meaning and thrust of China's transregional development through (originally, land-and-sea) infrastructure have also become diversified, if not muddied. Rather than a state-led change, this evolutionary moment must be read against the practical genealogies associated with its infrastructure planning interventions on the ground, which continually give the BRI its newfound purpose.

# **Contesting Airport Infrastructures**

If China's vision for transregional development has been extended through the grafting of airport infrastructure into the BRI, the plurality of aerial Silk Roads, as pursued by different cities, augurs a (re)splintering of that vision. Indeed, contestations over *where* these aerial networks ought to be distributed, and which airport should be the leading hub, further undermine any semblance of a coherent BRI. Whereas east-city reckons that its excellent connectivity with rail and road puts its airport in the running for the 'top major air hub in central China, even one

of top international calibre'<sup>5</sup>, west-city is defending its position as central China's preeminent air passenger node, and one of the historic starting points of ancient Silk Roads. These rivalries and divergent motivations for reconstructions and expansions not only suggest the competitive stacking of supposedly complementary infrastructures under the national programme; they also hint of how the BRI is, in some contexts, an internally divided scheme.

The juxtaposition of east-city and west-city in this study allows for some of these competitive dynamics to be surfaced. Between the two airports, it is east-city that currently carries more air cargo than the other. Consider the reaction of this respondent, a commercial freight forwarder based in west-city:

We were hoping for a larger volume of air cargo traffic, and more logistical companies to base here. It would have been significant for us—because the nation is stressing the Belt and Road; we are enroute to Urumqi, Central Asia and Europe. By right, we are China's focal point.<sup>6</sup>

Going on to explain east-city's success by calling its people 'shrewd', this respondent's historically and racially tinged reasoning belies a sense of division where some cities (and cultures) are deemed worthier than others to inherit the title of the BRI's 'focal point'. A government official's reading of the situation is equally telling:

<sup>&</sup>lt;sup>5</sup> Interview, EC02, airport authority, 13 July 2017.

<sup>&</sup>lt;sup>6</sup> Interview, WC02, freight forwarder, 18 July 2017.

Whether it be passenger traffic or international enterprise, east-city does not provide a more convenient platform than us. But their air cargo business has superseded us... So we have been proposing to the provincial government to invest in our airport based on a two-pronged passenger-and-cargo strategy.<sup>7</sup>

This characterization corroborates the earlier judgment about the 'rightful' geographies of aerial Silk Roads and their material anchors. More significantly, it intimates that BRI-affiliated infrastructural projects are sometimes covetously staged and expanded on the basis of comparison and competition (Butcher, 2011), in part to wrestle back regional dominance. Such domestically fractious struggles detract from the BRI's supposedly win-win mantra, complicating one of the state's chief aims of stabilizing domestic growth (Wang, 2016). By tracing the planning practices behind actual projects, what become apparent are these more locally vested quests for contestatory developmentalism, built up around specific local infrastructures.

This competitive form of development, effected through the (irrational?) construction of further infrastructures, proves even more incongruent with the BRI, considering that (some) west-city officials actually doubt the wisdom of current rates of investment. As a mid-management airport strategist admits:

<sup>&</sup>lt;sup>7</sup> Interview, WC03, airport authority, 18 July 2017.

Bluntly put, we have no air cargo to attract. Our economic structure does not support it.

Air cargo goes hand-in-hand with high-value-added goods [which we don't produce as much of].8

Citing east-city's relative advantage as a dedicated smartphone manufacturer for the global market, the respondent questions the prudence of rapidly expanding infrastructure in west-city. Suggestively, the fact that a future airport city of over 140 square kilometres—including a dedicated freight runway—is still currently being built speaks more to an urge to 'build in kind' (Siemiatycki, 2006), than to a realistic response to the nation's developmental goals. Contrary to common portrayals of a cooperative, 'win-win' BRI, these competitive motivations for expansion reveal a much more discordant story—of local authorities seeking to win their individual races through infrastructure.

In east-city, another contest is informing its infrastructural decisions. Here, developing east-city's aerotropolis is seen as a means to siphon off some of the aerial traffic now concentrating in the nation's leading hubs. As this respondent explains:

Cities like Shanghai play a leading role in China's logistics. With this comes price-setting power... Everyone wants to be number one. For us, there is still a long road before us to attain Shanghai's position, as it is the country's traditional economic trading zone. But we can be a transit hub for the country.

<sup>9</sup> Interview, EC03, airport authority, 13 July 2017.

<sup>8</sup> Interview, WC04, airport authority, 18 July 2017.

Sizing up east-city to China's premier commercial hub, this official is cognizant that the local airport cannot compete with or replicate Shanghai's scale yet. But short of capitulating, authorities are redoubling efforts to establish a strong transit-focused contender that would divert some of the traffic from congested hubs like Shanghai. Doing so calls for novel infrastructural responses, including consulting to build a world-class aerotropolis, attracting international cargo airlines through subsidies; and speeding up customs and quarantine processes. As another respondent elaborates on the last point:

The time taken for the unloading, reloading and re-shipment of goods is typically four hours. That is to say we guarantee a very high level of efficiency... We are now building a comprehensive inter-departmental exchange software, covering processes in customs, quarantine and other related services.<sup>10</sup>

Through municipality- and province-led investments in capacity-building and technological innovation, east-city airport is re-configuring itself, by availing large amounts of flexible cargo space and rapid customs services, in order to increase efficiency and capture market share in China's international aerial throughput. Competing on the basis of becoming the alternative stopover point for BRI circulations, east-city's planners have practically invented a *domestic* form of infrastructural developmentalism (cf. Firat, 2016) capitalizing on airport infrastructure as an instrument of internal—rather than external—spatial-fixing (cf. Lee et al., 2018).

<sup>&</sup>lt;sup>10</sup> Interview, EC04, airport authority, 14 July 2017.

This section has evinced how inter-city rivalry and competition in infrastructure planning can translate into unexpected dynamics in developmental projects (Butcher, 2011). Specific to the two Silk Road airports, such contestations do more to obfuscate and circumvent the scheme's original intentions than to bolster it. Short of openly admitting to such rivalries, local actors in both cities are seen justifying and pursuing various infrastructural expansion and improvement programmes, which are motivated inter-referentially, and practically, to advance local interests. Indeed, the two cities have materially sought to refashion their airport infrastructures that would allow them to match, if not surpass, their competitors' development—whether through physical expansion to 'catch up' to peers, or operational speed-ups to out-shine leading hubs. By paying attention to these grounded practices and motivations, the construction of aerial Silk Roads ceases to be an unproblematic extension of an ever-broadening BRI, but, rather, a political jostle within China to (re)define development for oneself and attain competitive advantage over domestic others.

# **Cultivating Social Relations**

Infrastructure planning does not only entail practices in conceptualization or (re)construction. It is also an endeavour that involves multiple agentic factions coalescing and working together to sustain and render infrastructure viable. As Niewiadomski (2017: 2) germanely writes with respect to the aviation industry, 'complex multi-scalar and multi-actor relational production networks' are responsible for 'bring[ing] air connections' and, by extension, airports 'into existence'. Recognizing that infrastructure relies on a wide range of human and relational contingencies (Dalakoglu, 2017; Siemiatycki and Farooqi, 2012), this

section wants to focus now on how such interactions indispensably undergird the everyday maintenance of aerial Silk Roads as well. The intention is to reflect on the implications of these social (dis)connections on infrastructures, and their knock-on effects on BRI development.

To return to east-city, the transit hub's rise from a small aviation player in 2010 (carrying just 85,000 tonnes of cargo) to one of China's top ten logistics airports presently (exceeding half a million tonnes) is not simply a matter of 'shrewdness'. The hub's success as one of the country's key aerial Silk Road foci is heavily abetted by its ability to attract Trans-Air to base its operations in the city, drawing over 100,000 annual tonnes of cargo between China, Europe and North America to the airport from the outset. In turn, this arrangement is dependent on deep interpersonal connections and goodwill gestures—often actively cultivated—between local, provincial, national and international decision-makers, which in turn helped instigate capital injections to the tune of nearly US\$220 million initially. Social engagements between these parties have crucially buttressed this special relationship, involving practices like frequent and warm high-level exchanges between Chinese and European leaders, and Trans-Air's senior management. In 2014 and 2016, for instance, east-city officials honoured the mayor of Trans-Air's home base, and its chief executive with prestigious 'Friendship Prizes' in dramaturgic celebrations of the 'founding of the People's Republic of China'; they had also sought to build trust and commitment with Trans-Air's management through long-term stakeholdership in the freight company, and regular commemorations of traffic growth milestones. Such practices represent a vital part of sustaining ties with the single largest international cargo anchor in eastcity. In contrast to the more turbulent partnerships commonly cited in research (e.g. Siemiatycki and Farooqi, 2012), the resultant congenial relationship has favoured, if not monopolized, a

version of local development under the BRI, whereby east-city would dominate European-bound air cargo trade routes.

Commercial engagements are not the only social practices east-city officials have pursued to lubricate the aerotropolis' functioning. They have placed an equal emphasis on partnering with various arms of government to fulfil the infrastructure's operational needs. On enhancing customs services, east-city's airport authorities benefited from the provincial government's allocation of 70 limited state-institution staffing contracts (事业编制)—as apportioned by the central government for province-wide social, cultural, economic and health services—for customs and quarantine purposes. This boost in manpower ensures that formalities for goods-in-transit 'can be done round-the-clock'. 11 Besides securing labour for critical functions of the airport, east-city has further developed ties with prominent personalities in airport policy circles within and beyond the nation. One of these individuals was an influential airport planning research director in Tianjin, who had been instrumental to introducing a prominent American consultancy on aerotropolis to east-city officials. Besides engaging this key figure, who also advises the State Council, local officials were quick to cement ties with leaders in the consultancy firm too, decorating its founder with the same Friendship Prize in 2016, and inviting him to set up China's then-only aerotropolis research centre—complete with expert panels, management trainees and students—in the city. These cultivation efforts, while never guaranteed to yield results, would later prove pivotal to establishing the country's first airportoriented trading zone—a proposal previously shelved in 2007 due to low traffic numbers. They have allowed east-city to leapfrog over stronger competitors to become a major Silk Road hub in

<sup>&</sup>lt;sup>11</sup> Interview, EC05, freight forwarder, 13 July 2017.

central China, and signalled how the interpersonal ties to infrastructure's practices can drive and sustain particular developmental outcomes under the BRI.

West-city airport, in contrast, experiences a dearth of such special social bonds, causing its aspiration to be the 'rightful' BRI node to fall slightly behind. Even so, officials there recognize the significance of these interpersonal ties to their operations. Their expressed hopes for future 'guanxi' in infrastructural projects re-affirm the sense that the BRI is not merely a matter of brick-and-mortar, but an ongoing practice of cultivating relational favours. As this respondent alludes to this fact:

Earlier this year, [west-city] has been identified as one of the BRI's starting points...

There is a political element here. Whenever our [national] leader talks about the BRI, he will always mention [west-city]. This was his hometown<sup>12</sup>

While it is unclear how these 'hometown' links would translate into policies that would lift cargo traffic, the acknowledgement that '[t]here is a political element' in the success of a city's nodality within the BRI intimates the importance of human networks in both materializing infrastructure *and* promoting development through those built forms. Such a logic is evident as well in west-city's expectation that one of its airline partners (one of China's big four) would continue to base its two-decade-old operations at the airport, 'since [one of our native airlines] once saved them in their most difficult time, by leasing our Dornier aircraft to them'. These references to memories, emotional debts, and personal histories, as currencies to be encashed,

<sup>&</sup>lt;sup>12</sup> Interview, WC05, airport authority, 20 July 2017.

<sup>&</sup>lt;sup>13</sup> Interview, WC04, airport authority, 18 July 2017.

suggest that minute interpersonal relationships woven into infrastructure can practically go a long way to steer BRI trajectories in preferential ways. They expose the fallacy of treating the BRI as an impartial 'grand' vision or blueprint, by directing attention to the salience of practical human touches that play a role in deciding individual infrastructures' success.

Unearthing these ethnographies not only helps explain the (non)emergence of air cargo hubs in east-city and west-city; it also brings to the fore a constitutive dynamics of social relations—as played out in infrastructure's ongoing execution—that is not often considered in development studies (see, however, Dalakoglu, 2017). As the two cases in this study have shown, infrastructure, as a key ingredient of contemporary development, depends crucially upon a network of trust, friendship, memories, debts, histories and expectations to become viable, failing which even the most elaborate plans could be frustrated (Yarrow, 2017). Such an interpretation portends that economic decisions are not made through rationality alone, but are entangled in a mélange of non-generalizable human favours, and undulations of human sentimentalities. Illuminating how the 'complex multi-actor architecture' (Niewiadomski, 2017: 3) of stakeholders shapes and sustains infrastructural assemblages, and in turn makes possible or occlude—certain aerial Silk Roads, can therefore uncover a less definitive BRI that transcends physical facilities and technocratic solutions. It contributes to a more nuanced understanding of 'infrastructural developmentalism' (Firat, 2016) under the BRI that is at least partly attributable to these relational practices, precipitating trajectories that are not always as professed or hoped for.

#### **CONCLUSIONS**

This article began with an invitation to rethink development as a set of discourses that are more fraught and mottled than they are integral. Examining China's landmark developmental programme, the BRI, the article has offered (a snippet of) how this agenda is practically forged on the ground, via infrastructural projects that often take development in unexpected directions. Yet, academic studies on the BRI have tended to portray the scheme as characterized by a set of well-defined logics, oscillating between China constructing a new order centred on itself, and China attempting to stabilize its economy through transregional spatial fixes (Chacko and Jayasuriya, 2018; Wang, 2016). While there have recently been exceptional pieces proposing a less rigid reading (Jones and Zeng, 2019; Murton et al., 2016; Rippa, 2018), the temptation to treat the BRI as a 'grand' politico-economic project with clear-cut, overarching aims remains an irresistible one. Viewing the BRI—along with other developmental programmes—as such, we argue, obscures the infrastructural practices that actually bring the scheme into fruition. Indeed, for the BRI, its meaning and form only most concretely take shape when specific projects meet the road.

Taking a practice approach is made more pressing by the fact that infrastructure has become so central to contemporary developmental initiatives like the BRI. Invoking Firat's (2016) concept of 'infrastructural developmentalism', we have argued that the very contentious nature of these built forms (Harvey et al., 2016) is what precisely opens the door to an unstable and, at times, contradictory BRI. To be sure, the rapid growth in international development financing (e.g. AIIB) may have played a part in the BRI's increasing diversity. But our study has also shown that the channelling of funds to specific projects does not happen in a vacuum; rather,

it is activated through grounded deliberations and infrastructural practices that legitimize certain financial investments (Hameiri and Jones, 2018; Yu et al., 2012). Seen as such, infrastructure constitutes an important focal point for tracing the origins of these changing developmental meanings and strategies. From how officials in east-city and west-city use airports to 'enchant' and (re)conceptualize a new aerial Silk Road imperative (Harvey and Knox, 2012), to the way they are motivated to modernize and expand on facilities (Butcher, 2011), to how they cultivate social relationships to sustain infrastructure's functioning (Dalakoglu. 2017), drilling down to these planning practices has yielded comprehensive insights into the detractions and slippages within a large-scale BRI that remains in flux. This inherent uncertainty over what the Chinese scheme is meant to achieve impels a need to unearth the situated stories informing diverse stages of its infrastructuring processes, and an appreciation of the 'complexity of motives and motions' (Pieterse, 2000: 183) that undergird its varied developmental courses.

The BRI's internal vacillations further serve as a rejoinder to popular portrayals of the scheme as a concerted Chinese plot to attain hegemony. As this study has shown, the manner in which east-city and west-city officials justify and narrativize their airport projects under the BRI is exceptionally concerned with local economic growth and prominence, as opposed to prospects of China's global dominance. Certainly, some state-linked manoeuvres such as the AIIB, or the recent takeover of Hambantota port in Sri Lanka, may count for Chinese attempts to gain geopolitical and military advantage through 'transnationalised state projects' (Chacko and Jayasuriya, 2018); but, for the vast majority of BRI-branded undertakings, provincial, municipal and corporate priorities have a more direct bearing on decisions on the ground. As Zhang (2017: 312) cautions, depicting China as a 'rising power' that is working toward challenging the US is

not only erroneous; it also propounds 'overly structural, systemic explanations' based on a (Western) world order assumption that would ultimately 'fall short in making sense of the nature of China's changing external stance'. Without coming to grips with how sub-national infrastructural motives are more modestly steering the BRI, it is easy to mistake the initiative as a premeditated plan for superpowerdom.

A final note needs to be made on the impact of developmental schemes like the BRI on ordinary citizens. Although this article's emphasis has not been on the casualties of China's transregionalization in the same way that development studies have often paid attention to the external effects of Western development on the 'Third World' (Arce and Long, 2000; Sen and Grown, 2013), our analysis brings to light the possibility of injustice unfolding right within China, where the BRI originates. Specifically, this article has shown how developmental schemes predicated on infrastructure often shares in the practical local fallouts of the latter (Anand et al., 2018)—whether it be a splintering of urban fortunes as some cities eclipse domestic rivals, or livelihood declines as infrastructural affordances, such as long-distance air cargo, disrupt former trading networks. Future research should pay heed to these internal contradictions, and to the messy politics that characterize development at different scales. Doing so would not only provide greater clarity to the BRI's impacts on the ground, but also give voice to wider groups of people affected by the surge of infrastructural developmentalism emergent of late in China and beyond.

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