Cosmic Infrastructure

Highrise apartments
in Xining. PC: Tim
Zachernuk.

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Urban redevelopment in contemporary China has created new material infrastructures that spatialise developmental temporalities and accelerate the destruction of older urban forms. In Xining city, the infrastructure of the contemporary city uneasily coexists with the cosmic infrastructures of Chinese eternal harmony and Tibetan Buddhist cyclical rebirth. In this essay, Andrew Grant explores how these three infrastructures ground different social orders and how thinking through cosmic infrastructures can reveal temporalities that urban redevelopment obscures.

Whether taken by rail or by road, the journey up the narrow gorges and blasted passageways that link the Chinese interior to Xining city, located at the eastern edge of the Tibetan Plateau, is a study in shades of browns, yellows, and dull greens. The landscape flattens out when the Plateau is finally reached. Amid farms and low-rise buildings, religious structures take pride of place. Crescent moon finials of mosques reach into the sky. In the distance, Buddhist stupas and prayer flags are secured to loess hillsides. The landscape again shifts as Xining approaches. There concrete high-rises dominate the skyline. In Xining, like in many Chinese cities, urban development is shifting the focus of the city and the regional circuits of circulation that put people into motion and which give order to their lives.

But what is occurring is a shift not only in urban form, but also more fundamentally in Chinese infrastructural space. Brian Larkin (2014) argues that infrastructures undergird not only economies and the built environment, but also domains of practice, including religion. As what Larkin calls ‘architectures of circulation’, particular cosmic infrastructures lubricate particular social orders. Construed broadly, cosmic infrastructure is formed through the connection of material places to a sacred order that binds landscapes and bodies to forces and temporalities that transcend the human world. China is a country whose material landscapes were traditionally built on cosmic infrastructural templates. Paul Wheatley (1971, 447) argued that the ancient Chinese city used ‘the magical harmonizing powers of construction according to a cosmic image’ to create a timeless social and political order derived from classic texts. Cosmic infrastructural standards, like any infrastructural standards, stem from canonical ‘repeatable formulas’ that guide the creation of material infrastructures and allow movement of goods and ideas between them (Wright 1965; Easterling 2014). The quadrilateral form of the traditional Chinese city is one such infrastructural standard. Once in place, a city built to this image would enable—if people acted accordingly—harmony and stability to reign. Likewise, as I will further explain below, Tibetan Buddhist mandalisation provides a cosmic infrastructure that offers escape from mundane rebirth. Both of these cosmic infrastructures offer temporalities that differ from post-socialist infrastructural development. They also both persist in one form or another in contemporary Xining.

My interest in infrastructure as a research object was jump started in April 2015 when I attended a colloquium at University of California Los Angeles in which Akhil Gupta showed us an image of an unfinished bridge in India. The bridge’s construction had been ‘suspended’ in part because of the slow bureaucratic process of getting building permits (see Gupta 2015). Complications included not only financing,

but also land access and the displacement of the poor population. The non-completion of this infrastructure project was discussed as a failure related to bureaucratic entanglement and fitfulness that deferred the promise of economic development (Gupta 2018). I could not help but think of the contrast with China, where the inability of urban residents to *stop* the razing of their neighbourhoods to make way for new urban development projects is a persistent sign not only of the weakness of China’s brand of ‘grassroots democracy’, but also the unavoidability of the future insofar as it was promised by infrastructure-as-economic-development (Appel 2018). Temporalities clearly mattered, but were the only temporalities in the Chinese city those of linear development or the disruption thereof? How might the relationship between time and infrastructure be reconceived if we think outside of the developmental teleology?

In the following sections I will discuss cosmic infrastructures in a redeveloping Xining city. Urban materialities are entangled in temporalities that speak both to the futures conjured up by socialist and post-socialist urban development, but also temporalities that speak to the eternal harmony of the Chinese ideal-type city and to the cyclical rebirth of Tibetan Buddhist cosmic infrastructure.

Cosmic City, Civilised City

As Tong Lam discusses in his essay in this collection, socialist development in the twentieth century often concretised visions of the socialist future. In mid-twentieth-century Asia, infrastructure made palpable the socialist promise of the future. This was a modernisation teleology that has today been largely surpassed by the equally linear process of development that China’s ‘world-class’ cities have made possible. Cities across China, including Xining, are being materially remade in line with new urban projects of ‘civilisation’

The three trees visualised in an underground shopping arcade. The trunks roughly correspond to where their roots should be. PC: Andrew Grant.

and ‘happiness’ (Cartier 2013; Oakes 2017; Grant 2018b). Newer parts of the city have a distinctively ‘China Made’ form, created in line with the infrastructural standards commonly crafted and deployed in contemporary China. Chinese urbanisation is based on institutional infrastructures such as the special zone (Cartier 2001; Bach 2010). These exceptional spaces guide how and where new infrastructures are built. They give impetus to massive disjunctures in urban form: new urban territories are built according to schemes that may diverge sharply from older urban districts. Urban redevelopment valorises newer urban constructions as the pinnacle of development and devalues older neighbourhoods, including those of the Maoist period, as backward. That is, as glass skyscrapers and wide black asphalt avenues appeared on recently annexed farmland to Xining’s west, older neighbourhoods

came to be distinguishable by their outdated twentieth-century infrastructures and the people who lived in them. Aspiring middle-class Chinese (of all ethnic groups) have sought to distance themselves from parts of the city that are associated with lagging behind. As this form of infrastructure becomes more deeply embedded, linear time is spatialised. According to my research participants in Xining, simply being among these suddenly ‘old’ parts of the city had a negative effect on urbanites’ bodies, stigmatising them with dirt, low quality, and a temporality deprived of a future.

Among the casualties of urban redevelopment were the cosmic infrastructures that mark the traditional Chinese city: four walls enclosing a rectangular city and four gates roughly oriented to the cardinal directions. In order to make room for new industrial sites and the transportation infrastructures that would

support them, the old city walls and the cosmic infrastructure they materialised were destroyed in the late twentieth century (Gaubatz 1996; Tuan 1996). Outmoded walls, formed from rammed yellow earth, were sacrificed to make way for creations of concrete, steel, and brick. Yet more recently in the postsocialist period, walls have gained a renewed significance. Old walls can index the eternal harmony of the traditional Chinese city and give a sense of heft and harmony to the newly redeveloped city. The twenty-first-century restoration in Xining of the Republican-era North Gate, coming close on the heels of the destruction of the remaining city walls, is an indicator of the continued symbolic significance of this cosmic infrastructure today. It has been rehabilitated and enrolled into the new harmony and social stability promoted in China's contemporary 'civilised city' (文明城市).

Another example of this enrolment can be found in a more natural form of infrastructure: trees. In the centre of the old city persist three old trees, dated by various official and word-of-mouth accounts from three hundred to fourteen hundred years of age, and marking the misty agelessness of folklore pertaining to the Queen Mother of West. These trees are part of contemporary Xining's claim to 'Kunlun Civilisation' (the contemporary Kunlun mountain range divides the Tibetan Plateau from the Tarim Basin to its north). The potential eternity of these trees indexes the embeddedness of the city and its hinterlands in a cosmic infrastructure. Certainly, these trees sit somewhat bizarrely with the claims to developmental progress found in the contemporary Chinese consumer city, as well as the circulations of consumerism the newer infrastructural space reinforces.

Cosmic Collisions

It would seem then that a new cosmic infrastructure is on the rise. Glass skyscrapers and shopping centres punctuate new urban

centres, while the old Chinese cosmic infrastructure lends it an air of permanence. The Harmonious Society and the Chinese Dream are realised through the sorts of circulations that the underground shopping arcade celebrating the Kunlun trees permits. How do these infrastructures sit alongside another cosmic infrastructure—that of Tibetan Buddhism? Urban skyscrapers, some pious Tibetan Buddhists confided to me, could be interpreted as symbols of greed. They also marked an emerging domain of infrastructural connection that disrupted Tibetan cosmic infrastructures. In this view, postsocialist infrastructure was putting the wrong sorts of things into circulation.

The ancient Chinese city shared a basis with other South Asian and Southeast Asian urban forms insofar as they both aspired to condense the cosmic order into a fabricated microcosm. In some Chinese Daoist texts, the urform of the city was thought to reside somewhere in China's northwest, in the mythical Kunlun mountain, abode of the Queen Mother of the West (Wheatley 1971, 442). But across Asia, Mount Meru provided a basis for mandalisation, the process of representing a spatial form of the cosmos (Tambiah 1977). Tibetan Buddhist sacred mountains are also mandala cosmos which, I argue, can be understood as cosmic infrastructures. At these mountains, pilgrimage guidebooks and conventions of ritual practice perform the role of infrastructural standards, giving form to the pathways that serve as montane circumambulation circuits. Affective connection to soil, stones, and water encountered along the routes, themselves experienced through bodily prostration, allow for the progressive cleansing of the pilgrim's accumulated evil deeds (Huber 1999). This is a cosmic infrastructure based in neither a secular harmonious order indicated by the old city wall, nor the temporality of capitalist modernisation, but in the soteriological rhythms of rebirth and a cosmic economy mediated through affective encounters with other bodies and things (da Col 2007). We might also grant cosmic infrastructure a quasi-agency. Jane Bennett

An installation of prayer wheels in a Xining housing complex. The prayer wheels bring Buddhist cosmic infrastructure into the city. PC: Andrew Grant.

(2010) considers materials as quasi-causal agents, capable of filling or draining our human vitalities. Materials have an affective vibrancy and that cannot be divorced from ethical practice, a reality that is clear in the case of Tibetan cosmic infrastructures such as prayer wheels, materials that can bestow merit upon those who engage with them.

Xining's urban core contains no mountains, but it does contain smaller structures that form part of a larger cosmic infrastructure of religious practice. Tibetans have pooled money to build prayer wheels, typically affixed to the

sides of buildings under awnings or housed in their own stand-alone structures within urban neighbourhoods. For older Tibetans, who may spend many hours a day prostrating at household shrines or turning prayer wheels, these activities enable a connection to the greater circulations that the cosmic infrastructures embedded in the Plateau landscape allow. Spinning and circumambulating these prayer wheels is a cleansing process that bodies utilise to capture karmic merit. Yet territorial restrictions in urban environments make the building of religious structures difficult, and

in some cases local authorities have destroyed unapproved prayer wheels. In one housing community, Tibetans joined hands to attempt to prevent a complex of prayer wheels from being bulldozed (Grant 2018a). Furthermore, state meddling in the religious built environment can invoke memories of past state-sanctioned violence. Images of the destruction of Buddhist monasteries, including prayer wheels reduced to rubble by Red Guards during the Cultural Revolution were popular on the Chinese social media platform WeChat. The circulation of such images and stories helps connect contemporary destruction with past state efforts to eliminate Buddhist infrastructures and, ultimately, Buddhist practice.

In contrast to the positive materiality outlined by Bennett, the affective potential of cosmic infrastructure can also be grasped through Gaston Gordillo's (2014) consideration of negativity and infrastructure. A shattered cosmic infrastructure affects bodies in very different ways from one in regular repair. Its destruction disrupts cosmic flows, and is both inauspicious and prevents the positive agency of the prayer wheels from positively affecting Tibetans' bodies. In this case then, the cosmic infrastructures of postsocialist development and Buddhism collide, the former disrupting and shattering the circulations of the latter.

Built according to canon, creating a community of practice (Star 1999, 381), and primed for the circulation of certain bodies, goods, ideas, and supramundane forces, they bring to the foreground the very values of the societies that create them. ■

Beyond Linear Temporalities

A key benefit of a cosmic infrastructural approach is that it gets beyond linear temporalities of development. Beyond looking at the past, present, and future, it also allows for the consideration of the temporalities of eternal harmony and cyclical rebirth. Cosmic infrastructures form a bridge between this world and others, realisable through symbolic significance and affect. It also deepens consideration of the urban by situating it within other forms of infrastructural space.