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The Storm Blowing from Paradise: Weathering China's Belt and Road Initiative

We have yet to discern ways of living at the ending of the world, how to weather its many storms or open its many horizons.

In December 2019, I traveled to Jakarta, Indonesia, to visit a construction site for a high-speed rail planned to connect the capital to Bandung, about 150 kilometers southeast. The project is part of China's Belt and Road Initiative (BRI), a set of state-led development, policy, and investment strategies centered on infrastructure. In 2013, China's president Xi Jinping introduced the BRI to Indonesia's parliament by referencing a conference held in Bandung in April 1955, where leaders and delegates from twenty-nine (mostly) newly independent countries from Asia and Africa met to discuss the possible future of a postcolonial world at a time marked by the Cold War and a new United Nations regime. Xi imbued the BRI's "building of new international relations" with the "Bandung spirit"—using the conference's anti-imperial "Third Worldism" as political and tactical evidence of a continued Afro-Asian solidarity against the contemporary and ongoing violence of Western imperialism.[1] As Antoinette Burton writes, "Bandung bears the burden of representing the bittersweet promise of postcolonial modernity, the ultimate dream deferred: a beacon of what global anticolonial politics was, might have been, and could be again in a 'new' ... age of racialized empire." [2] It is, perhaps, the very ambiguity of the Bandung spirit that makes it so politically expedient. By situating the Belt and Road Initiative's introduction in the residual romance of Bandung's elusive dreams at the "end" of empire, Xi Jinping reinforced an anti-imperialist claim for the dreams of global progress today.

On April 24, 2015, Xi Jinping visited Bandung to commemorate the sixtieth anniversary of the 1955 conference. Just a month prior, Indonesia's President Joko "Jokowi" Widodo and Xi discussed the possibility of China's participation in a high-speed rail project for connecting Jakarta and Bandung. [3] Their subsequent collaboration revealed a concerted effort on the part of Chinese officials and agencies to outdo Japanese export credit finance and gain contracts, partners, and clients for a BRI rail line. The project's arrival was met ambivalently by the United States and Europe, who characterized China's increasing influence as an extension of European colonialism and the US's postwar policies of "stealth" imperialism. These rebukes pivoted attention from the equally implicated geopolitics of the West toward an image of international order organized by the Chinese Communist Party and mediated by the BRI's Silk Road revival.[4]

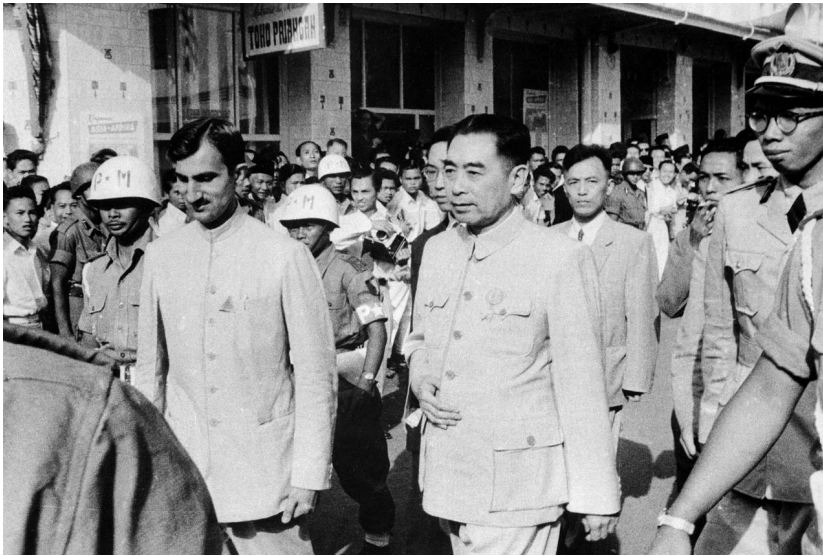
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[1] Speech by Chinese President Xi Jinping to Indonesian Parliament," trans. by ASEAN China Centre, October 2, 2013, link. On the fitful and uneven temporalities and geographies of Bandung, see *Making the World after Empire*, ed. by Christopher J. Lee (Athens: Ohio University Press, 2019).

[2] "Epilogue" in *Making the World after Empire*, 352.

[3] The first major railway in the colonial Indies, built by the Dutch, connected Batavia (present-day Jakarta) to Bandung. Today, the two cities, the capital and the archipelago's second-largest metropolitan area, are connected by toll roads and public trains operated by Kereta API (Indonesian Railways Company).

[4] On the invention and reinvention of Silk Roads, see, for instance, Tamara Chin, "The Invention of the Silk Road, 1877," *Critical Inquiry* 40, no. 1 (2013): 194–219.



The arrival of then-Chinese premier Zhou Enlai and the Chinese delegation at *Gedung Merdeka*, April 17, 1955. Courtesy of Keystone-France/Gamma-Keystone via Getty Images.



Xi Jinping and Peng Liyuan with Joko and Iriana Widodo at the sixtieth anniversary of the Bandung Conference of 1955. Xi and Jokowi are dressed in almost identical suits as they lead the procession, reenacting the “freedom walk” from the Savoy Homann Hotel to *Gedung Merdeka* on Asia Africa Road. Courtesy of AFP via Getty Images.

The BRI's image of third-world cosmopolitanism holds a central contradiction: its (pipe)dreams index an anti-universalist form of global relations, where all cooperation is threaded through China as compulsory relay. Put another way, its infrastructures rely on the continual formation of the Chinese state as their beating engine. While China situates itself in the global political economy, the BRI also angles a strategic reinvestment for the world's largest aggregate carbon emitter, enmeshing political and planetary futures as both experimental opportunity and existential threat to the perpetuity of the state. Nonetheless, this arrival is not something to be exorcised but rather a political reframing of the planet and its order-in-process. China is neither a civilizational counterpart to the West nor simply a site of appealing neo-universals; rather, it is situated in experimental worlds whose forms of statecraft not only deploy power over fixed territories but also persistently mutate, shifting in encounters with other forces.[5]

[5] See “Worlds in motion” in the writing of Aihwa Ong, *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty* (Berkeley: University of California Press, 2006).

In the Belt and Road's imagination, the end of the Chinese state might literally be the end of the world.[6] As the bittersweet promise of Bandung haunts the silk roads of the third world, the future, it seems, is haunted by the specter of nature and communism; all ghosts sharing a vast planetary machine. The BRI conjures this future full of pasts, its infrastructures containing within them a phantasmal movement of history. How the project has unfolded politically and materially has remained just as elusive. The following is an attempt to situate these phantoms on the ground. Moving through the constructed worlds of the Jakarta-Bandung high-speed rail, we might understand differently the BRI's entanglements and the conditions stabilizing its precarious life.

Signs of Futurity

On a stretch of toll road (*Jalan Tol Jakarta-Cikampek*) at the edge of Jakarta, we pass the concrete pillars of an elevated road, one after another. Beyond them I can see on cranes, scaffolding, and formwork a sea of red and blue banners and signs filled with white text. Framed by the passenger window of a black SUV, the scene holds a more-real-than-real residue of Maoist China's revolutionary poster aesthetic. "Are we close?" I ask Indra Putra, who is driving. Craning his neck toward the backseat, he responds, "Yes, we're just now passing the construction site for Halim station," the first station out of Jakarta planned for the high-speed rail to Bandung. "The Halim tunnel site is just ahead. That's one of our girder gantries," he says, pointing to a towering set of red cranes.

Pulling into the site of "Tunnel #1 Halim," we drive past a banner fastened to tin construction fencing. It reads, "Jakarta-Bandung High Speed Railway *Together* Build a Better Life *Together*." The redundancy seems, at first glance, to be bad English. The doubling of "together" reminds me of the together-ness presented in phrases like "the community with a shared future for humanity" (*renlei mingyun gongtongti*), which is often used in place of explicit reference to the BRI (*Yidai Yilu*).[7] Stepping out of the car, I realize the two *togethers* on the sign actually mean different things. The sign states that an output—the building of a better (collective) life—is premised on an input: the joint-building of the rail. Its promised futurity rests on the shared material grounds of the high-speed rail's construction, yet I feel this doesn't make sense: the deserved and dreamed-for tomorrow it proclaims seems to stand in for something else (i.e., not better living conditions). Perhaps the sign discloses a future deferred.

[6] See "The future of China is closely linked to the future of the world" (*Zhongguo de qiantu shi tong shijie de qiantu jinmi de lianxi zai yiqi de*) in Constitution of the People's Republic of China (*zhonghua renmin gongheguo xianfa*), [link](#). See also, Changhao Wei & Taige Hu, "Annotated Translation," [link](#), and Jerry Zee, "Machine Sky: Social and Terrestrial Engineering in a Chinese Weather-System," *American Anthropologist* 122, no. 1 (March 2020): 17–20.

[7] For instance, a 2018 amendment to Article 35 of the Chinese Communist Party's constitution adopts the term *renlei mingyun gongtongti* to refer to the BRI, avoiding the use of the expression *Yidai Yilu* (The Belt and Road Initiative). See Changhao Wei & Taige Hu, "Annotated Translation: 2018 Amendment to the P.R.C. Constitution (Version 2.0)," *NPC Observer* (March 11, 2018), [link](#).



"Jakarta-Bandung High-Speed Railway Together Build a Better Life Together" banner upon entering the site of Tunnel #1 Halim. Courtesy of the author.

In Indonesia, the president often talks about being behind, about needing to catch up, about building highly visible infrastructures to demonstrate a kind of modernity. Jokowi's enthusiasm for infrastructure articulates the great need for public utilities and systems to support and unify the diverse archipelago, but it also mirrors a fixation on moving up global economic and development rankings—an ascent that comes by way of state vision to build, build, build.[8] By that token, the rail's building of a better life is enclosed by a future commensurate with the growth and competitive advantage of Indonesia's economy. As a material metonym of national economic form, the rail as a particular infrastructural object might not matter so long as it performs the economic pretext of progress defined by more "developed" countries.[9] Public opposition to the Jakarta-Bandung high-speed rail often hinges on its exorbitance and erasure: the former said to foreclose the possibility of equal access to economic benefits that plainly favor Indonesian elites and the latter to displace certain communities, dispossessing them of their land, homes, and livelihoods.[10] This presents a central problem of modern infrastructure: that its construction always claims a material equivalency—the production of equal freedoms—in the world we all inhabit but experience differently.[11] Standing on the construction road, I consider what exists behind the sign and the tin fencing on which it hangs. I think about how infrastructures saturate daily life in visceral ways, spreading from the ground, stirring under bulldozers and pneumatic jackhammers, filling the air with dust and sand that gets into your eyes, mouth, and skin. It's strange how ordinary it all is: these upheavals that feel so un-modern. Figured as surplus, whole environments of labor are selfishly hoarded behind green plywood and tin fences, just out of sight.

Against Autopilot

I met Indra, an officer of project management at *PT Kereta Cepat Indonesia China* (KCIC), at their offices, only a few kilometers from the Halim tunnel site. KCIC nominally owns and manages the railway, its land, track,

[8] "Unity in diversity" (*Bhinneka Tunggal Ika* in Old Javanese), inscribed in the national symbol *Garuda Pancasila*, is Indonesia's official motto. See also Akhil Gupta, "The Future in Ruins: Thoughts on the Temporality of Infrastructure" in *The Promise of Infrastructure*, 64. Jokowi is often called Indonesia's "infrastructure president" in popular media, and Indonesia's National Medium-Term Development Plan for 2015–2019 detailed US \$500 billion in infrastructure spending. See full text of National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*) for 2015–2019, [link](#).

[9] Here I am leaning on Hannah Appel's notion of "Infrastructure as text; economy as pretext; politics as subtext" in "Infrastructural Time" in *The Promise of Infrastructure*, 48.

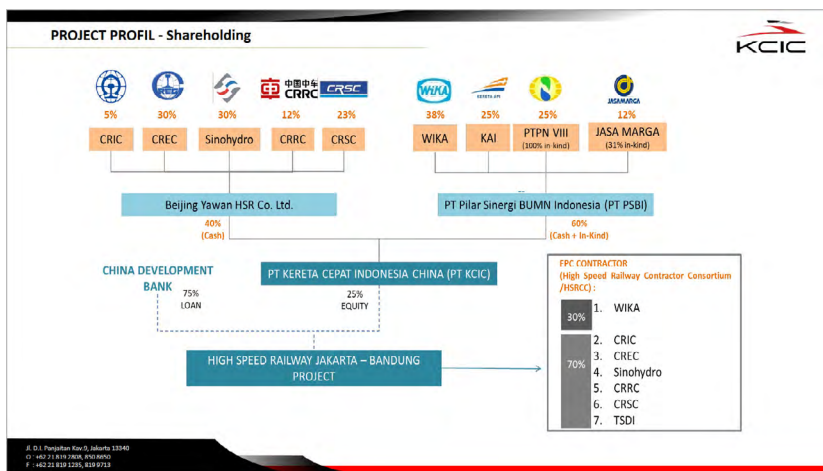
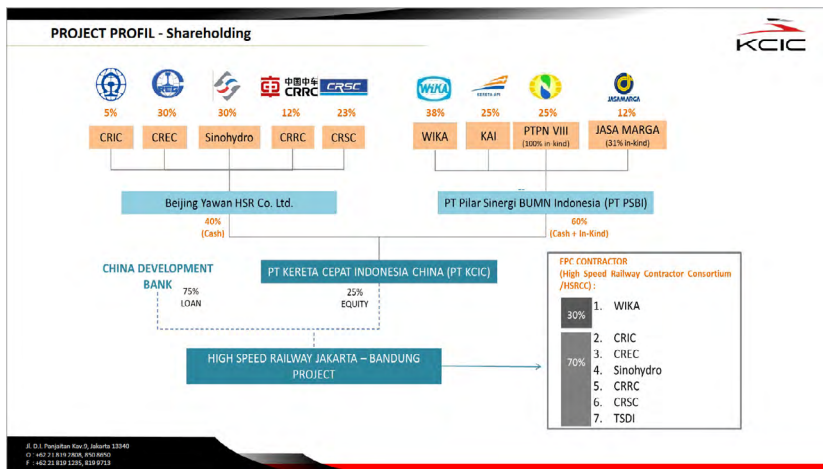
[10] An economy (Class 2) ticket for the high-speed rail is estimated to cost IDR \$300,000, a price tag equal to a luxury-class ticket on an executive passenger *Argo Parahyangan* train between Jakarta and Bandung operated by *PT Kereta Api*, Indonesia's state-owned railway company.

[11] Nishat Awan, "The Atlas Otherwise: Navigating Across Impermeable Surfaces and Shaky Grounds," forthcoming 2022 in Bobic, N. and Haghighi, F. (eds) *Routledge Handbook of Architecture, Urban Space and Politics*, 7.

and equipment. Leaning on substantial domestic and international capital markets, China Development Bank provides credit and financing for the entity while Chinese and Indonesian state-owned enterprises secure other funding in the form of assets.[12] KCIC's existence is predicated on a fifty-year government concession that grants the organization exceptional status to function "temporarily" as a non-governmental, for-profit entity—retaining ownership rights over an otherwise public service.[13] Essentially, KCIC is only considered real, or only made legally and financially recognizable, in order to secure private revenue. The fuzziness around this categorization is consequential: it shifts the onus of financial risk and responsibility from the state to other entities outside it. It simultaneously sanctions highly visible forms of state-sponsored promotion that paint the high-speed rail a significant national strategic project: an appearance that suggests a public good. KCIC is essentially a quasi-state invention, both part of the state and not. The creation and maintenance of these elusive boundaries (between the state and civil society) work to muddle accountability—discerning where or with whom responsibility lies means trudging alongside countless regulators, managers, and stakeholders, and through inaccessible language or only selectively accessible documents.

[12] KCIC presentation materials, sent to author January 1, 2020. See also Wilmar Salim and Siwage Dharma Negara, "Why Is the High-Speed Rail Project So Important to Indonesia?" *ISEAS Perspective* 16 (2016): 2; "Indonesia, China Consortium Sign \$4.5 Billion Loan for Rail Project," Reuters (May 15, 2017), [link](#). In general, Chinese state-owned enterprises (China Railway Engineering Corporation CREC, China Railway Signal and Communications Corporation CRSC, and CRRC) regulate intellectual property, engineering standards, and knowledge transfer, while those on the Indonesian side (PT Wijaya Karya, PT Jasa Marga, PT Kereta Api Indonesia, PT Perkebunan Nusantara) secure labor, land, and equipment.

[13] This concession scheme was signed between the Ministry of Transportation (*Kementerian Perhubungan Republik Indonesia*) and KCIC in 2016. See Siwage Dharma Negara and Leo Suryadinata, Table 1: Key Dates for the Jakarta-Bandung HSRP under "16 March 2016" in "Jakarta-Bandung High Speed Rail Project: Little Progress, Many Challenges," *ISEAS Perspective* no. 2 (2018): 3. For original policy documentation, see the Decrees of the Ministry of Transportation No. KP.32 and KP. 160 of 2016 (*Keputusan Menteri Perhubungan Nomor KP. 32 and KP.160 Tahun 2016*).



"Shareholding" and "Financial Scheme" PowerPoint slides from KCIC presentation. Courtesy of KCIC and shared with author.

Access to large pools of finance and credit bracket the high-speed rail's technical, regulatory, and operational specifications and standards.

[14] The rail's ongoing production and future management and maintenance is ultimately bound by other infrastructures largely controlled by Chinese authorities, investors, engineers, and experts. As gatekeepers, these actors and their diffuse networks regulate Indonesia's entry to a channeled world of capital, information, and intellectual property. The Jakarta-Bandung high-speed rail thus constitutes a physical and political assemblage for concentrating power by engineering financial and technological lock-in. Although the rail's "win-win" agreement (a celebrated trait of most BRI projects) suggests a more balanced distribution of power, it is difficult to write that as truth. How willing is Indonesia's acceptance of China's willingness? The (under)representation of Indonesia's agency in the decision-making, development, and implementation of the high-speed rail is (over)written by the familiar terms of an old colonial tradition. In this register, colonial violence appears through the gaze of state bureaucrats, experts, and technocrats and not through those that live with and in that disenfranchisement. Although sharp and critical, the gaze is quick to assert exactly how the colonial past bears on the present, and it renders a lesson of empire easily comported to political priorities. For instance, such an image of imperialism also circulates through Euro-American media. But as Nishat Awan asks of the work such images do in the world: "How might they make certain lives and worlds (i)legible, mourn-able and addressable on their own terms?"[15]

If the colonial tradition drawn by the technocratic image of the rail's governance is produced by grossly uneven access, the dispossessions that accompany it may not always be so obvious, eventful, or readily visible; rather, a protracted process saturates the grounds of people's lives, persisting in subsoils over time through reformulations and deformations. The high-speed rail and its relations do not run on autopilot: they are conditioned by an infrastructural system laboriously constructed by processes of continual repair that tenuously hold open certain channels over others for the drip, drip, drip of relations under capitalist extraction. When drawn as a line upon the empty surface of progress, the frictions of the high-speed rail's inscription are made illegible. Or, if they are made legible it's through a uniform colonial force that glosses over the psychic and material onslaught of ongoing seizures and exclusions, obscuring the careful management of damages thickly sensed and endured. As imperial residues settle into the social and material grounds of the Jakarta-Bandung high-speed rail today, we need to attend to the partitioned lives, persons, places, and things that remain on those grounds.

Release in Suspension

In a small conference room in the KCIC offices, Indra and a colleague cue up a promotional video about the Jakarta-Bandung high-speed rail.[16] My cousin is with me to act as translator. We listen to the low voice of an English narrator as exterior and interior renderings and walk-through animations of the rail flicker across the dark room. Pak (Mr.) Ismu Sutopo, a

[14] For instance, the high-speed rail is a CR400AF *Fuxing Hao* model, developed by a Chinese state-owned corporation CRRC, which owns the independent intellectual property rights of the rail's signaling, track and support structures, control software, internal components, and station design.

[15] Awan, "The Atlas Otherwise: Navigating Across Impermeable Surfaces and Shaky Grounds," 2.

[16] Claresta Pricilla Sutjiadi, PR&CSR (Public Relations & Corporate Social Relations) officer.

project manager associated with both KCIC and Wijaya Karya (a major EPC shareholder of the rail consortium) enters the room mid-reel.[17] Indra then walks us through a PowerPoint presentation. Alongside images of the train zipping across beautifully rendered landscapes, its slides show government regulations, KCIC's financial and managerial structuring, and the rail's master plans, maps, and progress charts. Indra clicks through another presentation that details construction processes but doesn't say much.

With the help of my cousin, I ask questions, both impromptu and prepared (vetted inquiries I sent in advance of our meeting). I ask about the rail's construction process; about the building of new power facilities and substations to support the rail's energy needs;[18] about the transfer of other utilities, including the allocation of radio frequency for the rail's control;[19] about batching and rolling stock plants and stockyards for material production; about the government-mandated "transit-oriented development"[20] along the rail and the firms, like ARUP, selected to design these schemes; about the rail's control systems and the regulation of intellectual property rights; about the transfer of technology and technical knowledge and the various institutions that will administer and govern these practices and subjects;[21] and about local and foreign labor, labor conditions and wages.[22]

I forget to be strategic. "What's the aim of this research?" Pak Ismu interjects with a tone that suggests the start of an interrogation. My cousin steps in, perhaps, to neutralize my interests. Ismu eventually laughs, "I see you are only interested in academic things. Besides, there's nothing to worry about, we are taking advantage of the Chinese." [23] His smile lingers in the heavy air; the tension releases. Was I smiling too?

There's nothing to worry about. Yet anxiety saturates the ethnic and class lines across Indonesia's history. It was there in Bandung in April 1955, in the qualms over China as a predatory hegemon; in the state-sponsored violence of the New Order under Suharto and the mass killings of 1965–66 fueled by "anti-communist" and ethnic minority purges against many who were ethnic Chinese; in the mass riots of 1998 following the financial crisis; and in allegations naming Jokowi a pawn of Chinese financiers (*cukong*).[24] In 2017, Jokowi visited Beijing for a two-day summit called the Belt and Road Forum for International Cooperation. It was there that KCIC and China Development Bank signed a loan commitment for 75 percent of the total \$6 billion cost of the high-speed rail.[25] In the months leading up to the summit, conversations in Indonesia centered on China, on Chinese workers, immigrants, and citizens. Jakarta's former governor Ahok, part of Indonesia's Chinese minority, was ousted. The country's largest union, the All-Indonesian Workers' Union, collected unofficial data on undocumented Chinese foreigners.[26] Students and activists in Sulawesi planned protests against Chinese workers and launched campaigns to inspect the identities of workers on Chinese-related projects.[27]

I recall Ismu's smile: correctly curved to mold memory, emerging from these uncertain grounds, without its troubling political substance. It insisted on fair conditions that might be acceptable or even respectable: the leaning on China, on its outside expert authorities, verifies Indonesia's willingness to stand in for public interest and its commitment to the public good. In that smile, Ismu offered me stable ground: a defense against witnessing an

[17] Engineering, Procurement, and Construction (EPC).

[18] For instance, the construction of a 150kV gas powerstation (GIS) II outside of Walini. See "PLN Fulfills Electricity Needs for Jakarta-Bandung High-Speed Rail Project" (*PLN Penuhi Kebutuhan Listrik untuk Proyek Kereta Cepat Jakarta-Bandung*), *Kompas*, January 31, 2020, [link](#). PLN and the national oil company, Pertamina, have respectively maintained a monopoly on Indonesia's electricity provision and petroleum distribution. In Java, coal is the main source of fuel for power plants; and coal-fired plants are often the chief recipients of Chinese investments. The rail's functioning is contingent upon such "crude" ecologies, correspondences between extractive resources, industrially produced material, human capital, and labor.

[19] Moch S. Hendrowijono, ed. Amir Sodikin, "Jakarta-Bandung High-Speed Rail Needs Radio Frequency" (*KA Cepat Jakarta-Bandung Butuh Frekuensi*), *Kompas*, January 25, 2021, [link](#).

[20] See Article 5 of Presidential Regulation of the Republic of Indonesia No. 107/2015, Concerning the Acceleration of Infrastructure and Facilities of the High-Speed Rail Between Jakarta and Bandung, [link](#).

[21] The Chief Engineer of China Rail Corporation remarks: "The Jakarta-Bandung High-Speed Rail is the first international cooperative project in which China has brought its entire industrial chain model to another country." Quoted from He Huawu in "Inside Indonesia: China-built US \$5.5 bln high-speed railway benefits locals," *CGTN*, May 6, 2018, [link](#).

[22] Indra explains that foreign labor is restricted to a ratio of 1:4. For every foreign (Chinese) worker working on the rail, four local Indonesian workers must be hired.

[23] Ismu Sutopo (Project Manager, KCIC) in discussion with author, December 27, 2019.

[24] This claim circulated in popular tabloid papers like *Obor Rakyat*. See Adam Tyson and Budi Purnomo, "President Jokowi and the Obor Rakyat Controversy in Indonesia," *Critical Asian Studies* 49, no. 1 (October 2016), 117–136.

[25] KCIC presentation materials, sent to author January 1, 2020. See also Salim and Negara, 2018. More recently, KCIC has acknowledged that costs have unexpectedly risen. See Resty Woro Yuniar, "Indonesia looks for more funds as bill for China-backed rail project balloons by US \$2 billion," *South China Morning Post* (September 7, 2021), [link](#).

[26] See Eveline Danubrata and Gayatri Suroyo, "In Indonesia, Labor Friction and Politics Fan Anti-Chinese Sentiment," *Reuters*, April 18, 2017, [link](#).

[27] Danubrata and Gayatri Suroyo, "In Indonesia, Labor Friction and Politics Fan Anti-Chinese Sentiment." See also Robert R. Bianchi, "Politicized Investments and Investments in Politics" in *China and the Islamic World: How the New Silk Road Is Transforming Global Politics* (Oxford University Press, 2019), 76.

appearance of the rail outside the solidity of its own claim-making. It is a smile that intends to release us from the guilt or complicity of violence. To confront his smile is to unsettle a solid suspended ground, to be unsettled in witnessing the rail's ongoing upheavals as they land on living beings and bodies, subjects and communities. As Nishat Awan and Christina Sharpe have argued, that confrontation would be an encounter with shaky ground, an insistence on sites and spaces of contestation continually unfolding, that is being persistently rendered solid.[28] But as smoothness appears to be the main theme of postcolonial history, it is too for Indonesia today. The BRI rail seems to move with the machinic ease of the past rolling into the present and to the future. Like the "rails of revolution" Sukarno, Indonesia's first president and architect-engineer, talked about, it is building out its dreams, sharp on time, so that its wheels, in the future, might turn.[29]

I get security clearance to go to the construction site "Tunnel #1 Halim." But it is raining, pouring outside.



[28] Awan, "The Atlas Otherwise," 5–6.

[29] Rudolf Mrázek, "Bypasses and Flyovers: Approaching the Metropolitan History of Indonesia," *Social History* 29, no. 4 (November 2004): 426. Originally quoted from Rel Revolusi Sukarno, speech of August 17, 1960, in *Dari Proklamasi Sampai Takari: Terbitan berisi Pidato Proklamasi Diutjapkan oleh P.J.M. Presiden Republik pada tiap Tanggal 17 Agustus sedjak tahun 1945 sampai 1965* [From the Proclamation to Independence: A Publication containing the Proclamation Speeches spoken by P.J.M. (Paduka Jang Mulia, a title attached to Sukarno's name) President of the Republic on every 17th August from 1945 to 1965] (Djakarta, 1965), 444.

Droplets of rain on the glass of a car's passenger window, taken on the road to Tunnel #1 Halim. Courtesy of the author.

Waiting for the Horizon

Indonesia's rainy season lasts half the year, from October to March. This is a plain observation, a simple fact, easily forgotten if you (like me) happen to live thousands and thousands of miles away. In New York, I had read in the *Jakarta Post* that a Chinese tunnel-boring machine had made its way from the Zhanghuabang Wharf in Shanghai on the *Phoenix Pine* ship to the site of Tunnel #1 Halim in February 2019. [30] I read that the machine was working twenty-four hours a day without pause, drilling at a rate of 8 to 10 meters a day.[31] At the time this seemed particularly believable. It was easy to think of the rail in terms of optimization: as materializing a wholly connected, efficient system-world for the late-capitalist economy. From behind my computer screen, the high-speed rail appeared to materialize this economy, despite being legitimized by the promise of something more or other than it. The planning and government documents accessible online appeared to be evidence. As evidence, they depicted an accidental line becoming a national strategic project before the ordinary purview of requisite studies.[32] At a time when wildfires

Portrait of Okinawan child. Mao Ishikawa, from *Red Flower*.

[30] "Tunnel Boring Machine for High-Speed Railway Project Arrives From China," *Jakarta Post*, February 1, 2019, [link](#).

[31] "Tunnel Boring Machine for High-Speed Railway Project Arrives From China," *Jakarta Post*.

[32] A few sources like *Wahana Lingkungan Hidup Indonesia* (WAHLI, Friends of the Earth Indonesia) cite that the rail's primary environmental impact assessment was carried out in the span of seven days. See WAHLI West Java "Environmental and Social Impacts of Proposed Jakarta-Bandung High Speed Rail," email to Chairman Hu Huaibang, China Development Bank, August 15, 2016, [link](#). See also Meiki W. Paendong, "The Jakarta-Bandung Rail Project: 5 Years On and Still Going Nowhere," *The Diplomat*, December 3, 2020, [link](#).

raged in Kalimantan and struggles for independence erupted in Papua and West Papua, the BRI rail appeared as a techno-political potion, enchanting humanity's march to the end.[33]

But waiting in the lobby of Jakarta's KCIC's offices for the heavy rain to wane, I remember the completion date for the BRI rail (whose construction started in 2016) was originally set for May 2019. The rain has explicated that future into the ongoing now. The winds of progress are crossed by other currents—hard to see if one is only tuned into the measure of tunnel-boring machines and the tick, tick, tick of charts, timelines, and planning documents.



[33] For instance, see "Smoke Blankets Borneo," *NASA Earth Observatory*, September 14, 2019, [link](#); "Fires in Indonesia Blanket Islands and Cities in Smog," *The Atlantic*, September 16, 2019, [link](#) and Tamara Soukotta, "An Uprising in West Papua," *Jacobin*, September 23, 2019, [link](#).

Scale model of tunnel-boring machine, taken in the exhibition hall on Tunnel #1 Halim. Courtesy of the author.

Indra suggests I visit the exhibition hall while I wait for the rain to stop. An engineer joins us for the tour. Inside a red-carpeted room, we stand in front of a scale model of a tunnel-boring machine. It is enclosed in glass on a white pedestal. The engineer, who speaks to me directly in Chinese, explains how the machine works in an efficient "closed" system: a cutterhead, acting as the main means of mining, is powered by the hydrostatic pressure of a slurry (a suspended mixture of water and soils) applied to the tunnel's excavation face; the slurry acts as a transport medium, mixing with excavated material and mined soils and debris before being pumped to a separation plant outside the tunnel; the plant enables the slurry mixture to be filtered and recycled for recirculation and reuse into the system. When I ask if the machine is currently running, the engineer grins, saying, "The machine only runs for a couple hours a day even when it is not raining. When it rains like it is now, the tunnel-boring machine never really runs." [34] Remembering the *Jakarta Post* article I read in New York, I think: for half a year, the machine will be working twenty-four hours a day with lots of pause. Indeed, we know of no system that functions so seamlessly, without friction, leakages, accidents, and failures. Suspension and delay are certainly routine to infrastructure projects that seldom run smoothly on course, on time.

[34] Engineer in conversation with author, December 27, 2019.



Tunnel-boring machine control room, taken underground inside the tunnel space of the boring machine. Courtesy of the author.

Weathering the Storm

In January 2020, “extreme weather and heavy rain” caused landslides and floods across West Java and the greater Jakarta region. In its wake, KCIC “identified risks surrounding the project area to take action against potential disruption and environmental damage.” Contractors swept through the area to clear debris and recover roads, and—for good measure —“monitor[ed] river and water gates across project locations.”[35] Their efforts were consistent with a kind of risk-based thinking that treats weather, atmosphere, and environment as an expansive engineering problem to be solved or managed, which aligns with the techno-solutionism of design and the spatial and material practices of mitigation in building and construction industries broadly. Such “best” practices offer KCIC a strategic politics of anticipatory design, allowing it “to mitigate those that are vulnerable” to unstable soil conditions and flooding; its president director adding, “We have anticipated this.”[36]

KCIC’s language expresses a certain irony, an expression that was also present in the engineer’s smile. The irony comes in part from sensing a stuttering time brought by the rain, which is contradictory to the linear time imagined by the rail. But the language of mitigation is also a distancing or defense mechanism: a form of protection that shelters us against witnessing the weathering of the (rain)storm. That is to say it prevents us from questioning how Indonesia’s (now ordinary) cyclical recurrence of heavy rainfall is a socionatural and sociotechnical threat or hazard, a risk or vulnerability for the high-speed rail’s future and the subjects it draws into orbit.

Under Dutch colonial rule, the seasonal rising waters (*air naik*) of the East Indies were framed as both an obstacle to economic development and a threat to the biopolitical administration of health.[37] Conceived as economic, political, biological, and ecological danger, flooding (*banjir*) legitimized the building of large-scale technical infrastructures, a system of canals, gates, and

[35] “High-Speed Railway Project Steps up Efforts to Deal with Extreme Weather,” *Jakarta Post*, January 8, 2020, [link](#).

[36] Ministry of Transportation, Directorate General of Railways, Bureau of Public Information and Communication, “Ministry of Transportation Optimistic for 2021 Competition of Jakarta-Bandung High-Speed” (*Menhub Optimis Proyek Kereta Cepat Jakarta-Bandung Selesai Akhir 2021*), news release, February 23, 2020, [link](#).

[37] Michelle Kooy and Karen Bakker, “Technologies of Government: Constituting Subjectivities, Spaces, and Infrastructure in Colonial and Contemporary Jakarta,” *International Journal of Urban and Regional Research*, 32, Issue 2 (2008): 375–387.

catchments intended to manage and control water flow for the spatial planning of “modern” urban forms and practices, standards, and meanings that facilitate certain processes over others.[38] In Indonesia today, water management generally unfolds through this concept of development conditioned by a long colonial history of techno-managerial fixes for managing “uncooperative” water flows that ultimately swell in floods and upon bodies inhabiting an unequal landscape of risk and vulnerability. In Jakarta, the erasure of practices, identities, subjects, and livelihoods is often made justifiable by flood and health protection policies meted out through risk assessments, which are fashioned as authoritative representations and models for measuring vulnerability. For instance, in 2015 and 2016, the eviction of residents in “illegal” *kampung* settlements and the removal of their “un-modern” practices of water use was legitimized by city plans to widen the Ciliwung river, ostensibly to address flooding as it was reified in institutional policies.[39]

The image of risk publicized in KCIC’s mitigation efforts (presented through flooding and high erosion rates) is a latent material register of injustices inflicted unevenly across communities in West Java. Thinking with and through the production and legitimization of Indonesia’s rainy season as danger/hazard/threat enables a deeper engagement with the contradictions present in the socio-ecological configuration of the high-speed rail, which, in turn, reworks the appearance and governance of environmental risk. Climate trends and rainfall patterns in West Java from the last thirty-five years actually reveal the weather in the region to be hotter and drier, with annual and daily rainfall measures indicating insignificant changes.[40] The floodwaters that swell with the uneven tides of climate change, then, are an outcome of dialectical relations between water and Indonesian society as it is built discursively and materially with its flows. Whether heavy rain soaks or flows is determined by land use, soils, plant cover, and terrain—grounds increasingly made impermeable by the hardness of development-as-usual that tends to produce more overland flow and the worsening of floods as they unequally affect those downstream.

At its most basic, the Jakarta-Bandung high-speed rail occupies this land in the Upper Citarum and Ciliwung watersheds and connects a coastal city built on a flood plain to one situated in the fertile basin of a prehistoric lake. In raised, subgrade, and tunneled sections, the 142-kilometer line of the Jakarta-Bandung high-speed rail follows alongside preexisting thoroughfares, shouldering the hard level bitumen of *Jalan Tol Jakarta-Cikampek* and *Jalan I. Dr. Djunjunan* maintained over geological faults in areas like Purwakarta and Walini; but it also diverges from these margins in “short cuts” through dense and parse suburbs, wet and dry agricultural lands, community forests, mountains and hills, and the catchment and drainage areas for two hydropower dams (the location of the rail’s longest tunnel sections).[41] For the rail, this terrain to be negotiated—deeply immersed in the fluxes of the mediums in which we live—is, at best, securely contained. That the rail is not attuned to human and more-than-human ecologies comes as no surprise.[42] The practices governing its construction envision the world as data arrays of solid objects mounted on baseboard like its scale replica in the air-conditioned, temperature-regulated exhibition hall.[43] The ground along its tracks, rendered as a cinematographic mass of landscape, mirrors the same tempered

[38] Kooy and Karen Bakker, “Technologies of Government.” See “Circulating ‘citizenship’: modernity, hygiene, and ‘rights’ to water” section in particular, 378–382.

[39] Kian Goh, “Urban Waterscapes: The Hydro-Politics of Flooding in a Sinking City,” *International Journal of Urban and Regional Research*, 43, Issue 2 (March 2019): 259.

[40] B. I. Setiawan and M. I. Ma’mum, “Climate trends and rainfall patterns in the Ciliwung watershed, West Java of Indonesia,” *2021 IOP Conference Series: Earth and Environmental Science*, [link](#).

[41] The total length of raised sections of the high-speed rail is approximated at 40 kilometers and subgrade sections at 80 kilometers. The Halim tunnel is one of eight.

[42] On the more than human doing and the capacities of humans and nonhumans to articulate, attune, and respond to one another, see Donna Haraway, *When Species Meet*, University of Minnesota Press (Minneapolis: 2008).

[43] Awan, “The Atlas Otherwise.” See “Questionable Resolutions and Sealed Volumes” to “Against the Volume” sections in particular, 3–7.

smoothness and purity of speed as this train. Although the contingencies of the ground and air are rendered as datafied bits and fragments of its engineered system, the rail absorbs them—surfacing and securing its foundations—as a technique of weathering only insofar as to be politically valuable and economically durable.



Model replica of the Jakarta-Bandung High-Speed Railway, taken in exhibition hall on Tunnel #1 Halim. Courtesy of Devris Wijaya and shared with author.

In December 2016, Jokowi signed a regulation that eased rules on the acquisition of land for strategic infrastructural projects like the BRI high-speed rail.[44] The law helped to push along the faltering pace of land acquisition for the rail, allegedly the primary cause of delay. Land acquisition is now 99 percent, but we might, instead, question the telos of completeness.[45] In October 2019, construction for the railway collided with an oil pipeline.[46] Apparently, no comprehensive map has ever been made for existing infrastructure channels. As this fire burned, politicians, planners, engineers, and contractors rushed to organize a mapmaking meeting with all the stakeholders with assets in the area. A Chinese rail construction worker, Li Xuanfeng, was killed in the fire.[47] In a perverted appraisal of both the rail and oil, the stakeholders responsible for workers' lives rendered the heaviness of Li's death as just a body, one that erected a material barrier to the rail's progress.

Pipelines, homes, buildings, farms, plants, organisms, and people occupying space along the rail's path are all considered barriers to its progress, figured as interruptions to its development. The high-speed rail measures up its world as a full-scale model furnished with these contents. Calculating its placement on a smooth ground, the railway surveys its position in relation to this arrangement of binary 3D blocks made up of isolated data, which literally block (making difficult or impossible) its development. Its progress is apprehended in a series of fixed/static points, bounded by one horizon.[48] Yet, the actual grounds of the Jakarta-Bandung high-speed rail quite radically

[44] See Presidential Regulation of the Republic of Indonesia No. 3/2016, [link](#), and Presidential Regulation No. 102/2016, Concerning Land Acquisition Financing for Public Interest Development to Implement National Strategic Projects.

[45] Land acquisition is still cited as a principal cause of delay and increased costs. See, for instance, note 33.

[46] The explosion occurred at the edge of the Purbaleunyi toll road KM130, Cimahi near Bandung at around 2 p.m. with a radius of about 50 meters. Pertamina, Indonesia's national oil company, claimed responsibility for the explosion. Its pipeline was carrying "Pertamina Dex" fuel (a non-subsidized diesel fuel for high-engine performance and "eco" vehicles) from Ujung Berung to Padalarang. See Febrina Ratna Iskana, "KCIC Admits to a Pertamina Pipeline Fire on its High-Speed Rail Project" (*KCIC Akui Kebakaran Pipa Pertamina Terjadi di Proyek Kereta Cepat*), *Katadata.co.id*, October 22, 2019, [link](#); Arya Dipa, "Pertamina oil pipeline explosion kills rail worker," *Jakarta Post*, October 22, 2019, [link](#). See also "Pertamina Dex," Pertamina Fuels, [link](#).

[47] Li was a heavy machinery operator with Mingshun Construction. "Chinese worker dead in Indonesia high-speed rail project in Jakarta," *South China Morning Post* via Reuters, October 22, 2019, [link](#).

[48] Tim Ingold, "Footprints through the Weather-World: Walking, Breathing, Knowing," *Journal of the Royal Anthropological Institute* 16 (2010): S121–39, S133–36.

invade and resist this logic. For example: material surplus and backfill blocks the desire lines of water flow that pool instead in giant puddles on the *Jalan Tol Jakarta-Cikampek*, blocking traffic;[49] construction debris and agitated soils choke waterways for irrigating farmland and contaminated residues seep into rivers;[50] cracks appear on land and in homes;[51] lives are disrupted; and dispossessed residents struggle to resettle elsewhere or refuse payment for their land.[52]

Where the rail perceives a linear series of passive inputs and outputs, its ongoing development is actually immersed in an active world constantly imbricated with other systems. Its existence (itself a construction still-in-progress) infiltrates a lively domain bound up with human and nonhuman inhabitants. This ground, a surface in continuous generation, is experienced “in histories of movement and changing horizons along the way.”[53] But even when we encounter this percolating, oozing rain-sodden ground, we seem to travel across it, building our ways of knowing and being up architecturally as a superstructure. Even when we notice a fitful, stuttering running out of steam, we see a train running smoothly toward progress, instead of something we have constructed to believe. What would it mean to move through these engineered and constructed worlds rather than across them?

Bounded by one horizon, the rail’s future is a space of holding material conditions in place so that they may persist just a few more years and then, if possible, “1 year, 2 years, 3 years, 30 years, 300 years, and, straight on, till the end of time” as Sukarno proclaimed in 1946.[54] Holding the present in place as such requires continuous, laborious work: the rail takes more and more—devalued, “invisible,” and “imperceptible” work—to make sure nothing happens but the continuation of its existence. This is, as Jerry Zee Lee writes, “a Sisyphean expenditure of materials and labor for an infrastructure that”—so the popular adage goes—“only ever becomes evident when it breaks down and needs repair.”[55] It is a politics that aims to continually pattern material endurance into an unchanging present in carefully managed and maintained neglect.



[49] Wahyu Tri Rahmawati, “Triggering Flooding, the JKT-BDG High-Speed Project is Suspended Today” (*Memicu banjir, proyek kereta cepat JKT-BDG disetop mulai hari ini*), March 2, 2020, [Kontan.co.id](https://kontan.co.id), [link](#).

[50] See “Reviewing Paddy Fields Buried by High-Speed Rail Project in Purwakarta, Kang Uu: There Must Be a Win-Win Solution” (*Tinjau Sawah Tertimbun Tanah Proyek Kereta Cepat di Purwakarta, Kang Uu: Harus Ada Win-Win Solution*), news release from Deputy Governor (Vice Governor) of West Java Uu Ruzhanul Ulum, *Bappeda Jabar*, February 19, 2020, [link](#). “KCIC Project Waste Contaminates Agricultural Land in West Bandung” (*Limbah Proyek KCIC Cemari Lahan Pertanian di Bandung Barat*), *Gatra*, September 2, 2020, [link](#).

[51] Ronna Nirmala, “Jakarta-Bandung High-Speed Rail Project Overshadowed by Allegations of Environmental Damage” (*Proyek Kereta Cepat Jakarta-Bandung Dibayangi Tuduhan Kerusakan Lingkungan*), *Berita Benar*, July 7, 2018, [link](#).

[52] See for instance “PSBI Pays Compensation for Residents Affected by the Jakarta-Bandung High-Speed Rail Project” (*PSBI Bayar Ganti Warga Terdampak Proyek Kereta Cepat Jakarta-Bandung*), *Kompas*, July 12, 2019, [link](#).

[53] Originally quoted from Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling, and Skill* (London: Routledge, 2000), 227.

[54] Mrázek, “Bypasses and Flyovers,” 426. Originally quoted from in Sukarno, speech of August 17, 1956, in *Dari Proklamasi sampai Takari*, 292.

[55] Jerry Zee “Holding Patterns: Sand and Political Time at China’s Desert Shores,” *Cultural Anthropology* 32, no. 2 (2017): 227. On infrastructural breakdown, see Brian Larkin, *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria* (Durham, NC: Duke University Press).

Drone footage of Tunnel #8 Walini, the second longest tunnel of the Jakarta-Bandung High-Speed Railway via Tahanbadann on YouTube.

The Belt and Road Initiative inscribes a future planetary machinery whose development and longevity is contingent upon the Chinese state.[56] However, the stability of this formation is more fragile than it seems, and its infrastructures are always looser than they appear in the distance. The BRI's infrastructures are precarious mutable experiments sustained by processes of damage and repair that persistently attempt to reproduce repressive relations into the future. The grounds of the Jakarta-Bandung high-speed rail hold this struggle, and they engender unsettled spaces and temporalities for thinking about history, agency, vulnerability, and refusal. At the end of the construction site visit, I looked at the high-speed rail through the rearview mirror of a car. Beyond the droplets of rain on its surface, it reflected an image of upheaval indistinguishable from the remnants left after disaster. These ruins were not just a mirrored reflection (they were more than mere metaphor): they witnessed the fragility of the BRI's power in tempering its own utopian horizon, and they materially recorded the force of its ongoing destruction. Setting the political stakes of the BRI demands an address of violence too often noticed only in failure and breakdown. By weathering the storm on earth's leaky grounds, we shift that ruination into the ongoing now, unsettling the future as speculative. This allows us to discern the conditioned grounds on which life is articulated and sustained while opening new ways to grapple with the damaged marks and wounds in what and whom remains on soil that may hold futures prematurely foreclosed.

[56] "The future of China is closely linked to the future of the world" (*Zhongguo de qiantu shi tong shijie de qiantu jinmi de lianxi zai yiqi de*) in the Constitution of the People's Republic of China (*zhonghua renmin gongheguo xianfa*), [link](#). See also Changhao Wei & Taige Hu, "Annotated Translation," [link](#).

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